

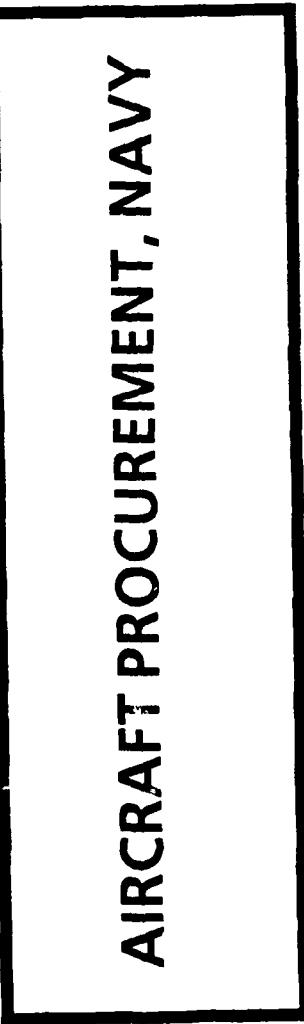
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DEPARTMENT OF THE NAVY
JUSTIFICATION OF ESTIMATES
FY 1992/FY 1993 BUDGET ESTIMATES



SUBMITTED TO CONGRESS FEBRUARY 1991

PROCUREMENT



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**Department of the Navy
Aircraft Procurement, Navy
Justification of Estimates for Fiscal Year 1992 and Fiscal Year 1993**

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Statement A, per phonecon with Vice Vicair
Offices of the Comptroller-Navy (NCBG-2),
Pentagon(4C-640), Wash, DC 20350
Vic LaChance DTIC-FDAB 3-23-91

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AIRCRAFT PROCUREMENT, NAVY

For construction, procurement, production, modification and modernization of aircraft, equipment, including ordnance, spare parts, and accessories therefor; specialized equipment; expansion of public and private plants, including the land necessary therefor, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; \$7,231,800,000 of which \$13,852,000 shall be available only for the Navy Reserve and Marine Corps Reserve, to remain available for obligation until September 30, 1994. Further, for the foregoing purposes, \$6,953,200,000 of which \$18,769,000 shall be available only for the Navy Reserve and Marine Corps Reserve, to remain available for obligation until September 30, 1995.

Financing

The FY 1992 budget plan of \$7,231,800,000 for the Aircraft Procurement, Navy appropriation is to be financed by new obligational authority. The FY 1993 budget plan of \$6,953,200,000 will also be financed by new obligational authority.

Aircraft Procurement, Navy
Program and Financing (in thousands of dollars) FISCAL YEAR 1981

		Budget Plan (amounts for PROCUREMENT actions programmed)		
		1990 actual	1991 est.	1992 est.
Identification code		17-1506-0-1-051		1993 est.
Program by activities:				
D1	program:			
00.0101	Combat aircraft			
00.0301	Trainer aircraft			
00.0401	Other aircraft			
00.0501	Modification of aircraft			
00.0701	Aircraft support equipment and facilities			
00.9101	Total direct program			
01.0101	Reimbursable program			
10.0001	Total			
Financing:				
Offsetting collections from:				
11.0001	Federal funds(-)			
13.0001	Trust funds(-)			
14.0001	Non-Federal sources(-)			
17.0001	Recovery of prior year obligations			
21.4001	Unobligated balance available, start of year:			
21.4002	For completion of prior year budget plans			
21.4003	Available to finance new budget plans			
21.4009	Reprogramming from/to prior year budget plans			
22.4001	Unobligated balance transferred to other accounts lapsing			
25.0001	Unobligated balance lapsing			
40.3601	Budget authority (Appropriation rescinded) (
		30,000		

**Aircraft Procurement, Navy
Program and Financing (in Thousands of dollars) FISCAL YEAR 1988**

		Obligations		
		1990 actual	1991 est.	1992 est.
		1993 est.		
Identification code	17-1506-0-1-051			
Program by activities:				
Direct program:				
Combat aircraft	205,912			
Trainer aircraft	142			
Other aircraft	2,490			
Modification of aircraft	45,584			
Aircraft support equipment and facilities	13,304			
00. 0101 Total direct program	267,432			
01. 0101 Reimbursable program	1,822			
10. 0001 Total	269,254			
Financing:				
Offsetting collections from:				
Federal funds()	219			
Trust funds(-)	349			
Non-Federal sources(-)	2			
17.0001 Recovery of prior year obligations	-24,303			
Unobligated balance available, start of year:				
For completion of prior year budget plans	-319,235			
Available to finance new budget plans	-30,000			
Reprogramming from/to prior year budget plans				
Unobligated balance transferred to other accounts				
Unobligated balance lapsing				
40. 3601 Budget authority (Appropriation rescinded) (-30,000			

Aircraft Procurement, Navy
Program and Financing (in thousands of dollars) FISCAL YEAR 1989

Budget Plan (Amounts for PROCUREMENT
actions programmed)

	1990 actual	1991 est.	1992 est.	1993 est.
Identification code	17-1506-0-1-051			
Program by activities:				
Direct program:				
00.0101 Combat aircraft				
00.0301 Trainer aircraft				
00.0401 Other aircraft				
00.0501 Modification of aircraft				
00.0601 Aircraft spares and repair parts				
00.0701 Aircraft support equipment and facilities				
Total	10.0001			

Financing:
Offsetting collections from:

11.0001 Federal funds(-)			
13.0001 Trust funds(-)			
14.0001 Non-Federal sources(-)			
17.0001 Recovery of prior year obligations			
Unobligated balance available, start of year:			
21.4002 For completion of prior year budget plans	-30,600		
21.4003 Available to finance new budget plans	-3,408		
21.4009 Reprogramming from/to prior year budget plans	34,008		
22.4001 Unobligated balance transferred to other accounts			
24.4002 Unobligated balance available, end of year:			
For completion of prior year budget plans			
39.0001 Budget authority			

Aircraft Procurement, Navy
Program and Financing (In Thousands of dollars) FISCAL YEAR 1989

		Obligations		
		1990 actus	1991 est.	1992 est.
Identification code	17-1506-0-1-051			1993 est.
Program by activities:				
Direct program:				
00.0101	Combat aircraft	617,933	450,415	
00.0301	Trainer aircraft	158,613	20,665	
00.0401	Other aircraft	8,549	7,382	
00.0501	Modification of aircraft	148,088	71,571	
00.0601	Aircraft spares and repair parts	17,667	22,888	
00.0701	Aircraft support equipment and facilities	51,761	24,855	
10.0001	Total	1,002,611	597,876	
Financing:				
Offsetting collections from:				
11.0001	Federal funds(-)	-3,874		
13.0001	Trust funds(-)	-147		
14.0001	Non-Federal sources(-)	-3		
17.0001	Recovery of prior year obligations	-249,143		
	Unobligated balance available, start of year:			
21.4002	For completion of prior year budget plans	-1,350,728		
21.4003	Available to finance new budget plans	-30,600		
21.4009	Reprogramming from/to prior year budget plans	34,008		
22.4001	Unobligated balance transferred to other accounts			
24.4002	For completion of prior year budget plans	597,876		
39.0001	Budget authority			

Aircraft Procurement, Navy Program and Financing (in thousands of dollars) FISCAL YEAR 1990		Budget Plan (amounts for PROCUREMENT actions programmed)	
Identification code	17-1506-0-1-051	1990 actual	1991 est.
		1992 est.	1993 est.
Program by activities:			
Direct program:			
Combat aircraft		5,883,683	
Trainer aircraft		99,262	
Modification of aircraft		1,522,487	
Aircraft spares and repair parts		1,167,214	
Aircraft support equipment and facilities		505,153	
Total direct program		9,177,799	
01.0101 Reimbursable program		3,626	
10.0001 Total		9,181,425	
Financing:			
Offsetting collections from:			
Federal funds(-)		-1,727	
Trust funds(-)		-1,886	
Non-Federal sources(-)		-13	
Unobligated balance available, start of year:			
For completion of prior year budget plans			
Available to finance new budget plans		-10,600	
Unobligated balance available, end of year:			
For completion of prior year budget plans			
Available to finance subsequent year budget plans		10,600	
39.0001 Budget authority		9,188,399	-10,600
Budget authority:			
40.0001 Appropriation		9,389,266	
40.7501 Reduction pursuant to P.L. 101-165 (-)		-12,867	
41.0001 Transferred to other accounts (-)		-188,000	-10,600
43.0001 Appropriation (adjusted)		9,188,399	-10,600

**Aircraft Procurement, Navy
Program and Financing (in thousands of dollars) FISCAL YEAR 1990**

		Obligations		
		1990 actual	1991 est.	1992 est.
Identification code		17-1506-0-1-051		1993 est.
Program by activities:				
Direct program:				
00.0101	Combat aircraft	5,633,179	172,321	78,183
00.0301	Trainer aircraft	4,559	89,758	4,945
00.0501	Modification of aircraft	1,062,160	293,235	167,092
00.0601	Aircraft spares and repair parts	1,13,175	24,779	8,260
00.0701	Aircraft support equipment and facilities	470,933	17,664	16,556
Total direct program		8,305,006	897,757	275,036
00.9101	Total direct program			
01.0101	Reimbursable program			
10.0001	Total			
		8,305,006	601,383	275,036
Financing:				
Offsetting collections from:				
11.0001	Federal funds (-)	-1,727		
13.0001	Trust funds (-)	-1,886		
14.0001	Non-Federal sources (-)	-13		
Unobligated balance available, start of year:				
21.4002	For completion of prior year budget plans			
21.4003	Available to finance new budget plans			
Unobligated balance available, end of year:				
24.4002	For completion of prior year budget plans			
24.4003	Available to finance subsequent year budget plans			
39.0001	Budget authority			
Budget authority:				
40.0001	Appropriation	9,389,266		
40.7501	Reduction pursuant to P.L. 101-145 (-)	-12,867		
41.0001	Transferred to other accounts (-)	-188,000	-10,600	
43.0001	Appropriation (adjusted)			
		9,188,399	-10,600	

**Aircraft Procurement, Navy
Program and Financing (in thousands of dollars) FISCAL YEAR 1991**

		Budget Plan (amounts for PROCUREMENT actions programmed)		
		1990 actual	1991 est.	1992 est.
Identification code				
Program by activities:				
Direct program:				
Combat aircraft	00.0101	4,891,951		
Trainer aircraft	00.0301	159,154		
Other aircraft	00.0401	6,000		
Modification of aircraft	00.0501	1,025,341		
Aircraft spares and repair parts	00.0601	1,128,104		
Aircraft support equipment and facilities	00.0701	533,001		
Total direct program	00.9101	7,743,551		
Reimbursable program	01.0101	6,600		
Total	10.0001	7,750,151		
Financing:				
Offsetting collections from:		-8,600		
Federal funds(-)	11.0001			
Unobligated balance available, start of year:				
For completion of prior year budget plans	21.4002			
Available to finance new budget plans	21.4003			
Unobligated balance available, end of year				
For completion of prior year budget plans	24.4002			
Available to finance subsequent year budget plans	24.4003			
Budget authority	39.0001	15,100		
Budget authority:				
Appropriation	40.0001	7,810,452		
Reduction pursuant to P.L. 101-511 (-)		-8,401		
Transferred to other accounts (-)	40.7502	-43,400		
Appropriation (adjusted)	41.0001			
	43.0001	7,758,651		

**Aircraft Procurement, Navy
Program and Financing (in thousands of dollars) FISCAL YEAR 1991**

Obligations

Identification code	17-15006-0-1-051	1990 actual	1991 est.	1992 est.	1993 est.
Program by activities:					
Direct program:					
00.0101	Combat aircraft	4,313,054	351,298	227,599	
00.0301	Trainer aircraft	135,276	15,921	7,957	
00.0401	Other aircraft	5,100	600	300	
00.0501	Modification of aircraft	780,761	128,749	115,831	
00.0601	Aircraft spares and repair parts	1,018,819	70,114	9,171	
00.0701	Aircraft support equipment and facilities	453,021	53,330	26,650	
00.09101	Total direct program	6,736,031	620,012	387,508	
01.0101	Reimbursable program	6,600	-	-	
10.0001	Total	6,742,631	620,012	387,508	
Financing:					
Offsetting collections from:					
11.0001	Federal funds (-)	-6,600	-	-	
Unobligated balance available, start of year:					
21.4002	For completion of prior year budget plans	-1,007,520	-387,508		
21.4003	Available to finance new budget plans	-15,100			
24.4002	Unobligated balance available, end of year:	1,007,520	387,508		
24.4003	For completion of prior year budget plans	15,100			
39.0001	Available to finance subsequent year budget plans	-	-	-	
Budget authority:					
40.0001	Appropriation	7,810,452			
40.7502	Reduction pursuant to P.L. 101-511 (-)	-8,401			
41.0001	Transferred to other accounts (-)	-43,400	-15,100		
43.0001	Appropriation (adjusted)	7,758,651	-15,100		

**Aircraft Procurement, Navy
Program and Financing (in thousands of dollars) FISCAL YEAR 1992**

		Budget Plan (Amounts for PROCUREMENT Actions programmed)		
Identification code	17-1506-0-1-051	1990 actual	1991 est.	1992 est.
Program by activities:				
Direct Program:				
00.0101	Combat aircraft	3,684,408		
00.0301	Trainer aircraft	343,193		
00.0401	Other aircraft	165,559		
00.0501	Modification of aircraft	1,548,382		
00.0601	Aircraft spares and repair parts	921,014		
00.0701	Aircraft support equipment and facilities	568,944		
00.9101	Total direct program	7,231,800		
01.0101	Reimbursable program		6,800	
10.0001	Total	7,238,600		
Financing:				
Offsetting collections from:				
11.0001	Federal funds (-)	-6,800		
21.4002	Unobligated balance available, start of year: For completion of prior year budget plans			
24.4002	Unobligated balance available, end of year: For completion of prior year budget plans			
40.0001	Budget authority (appropriation)	7,231,800		

Aircraft Procurement, Navy
Program and Financing (In Thousands of dollars) FISCAL YEAR 1992

Obligations

		1990 actual	1991 est.	1992 est.	1993 est.
Identification code 17-1506-0-1-051					
Program by activities:					
Direct program:					
00.0101 Combat aircraft		3,263,760	2,16,429	34,318	
00.0301 Trainer aircraft		292,001		16,539	
00.0401 Other aircraft		140,739		168,510	
00.0501 Modification of aircraft		1,262,009		847,228	
00.0601 Aircraft spares and repair parts		847,228		67,842	
00.0701 Aircraft support equipment and facilities		485,048		55,450	
00.9101 Total direct program		8,280,782		577,088	
01.0101 Reimbursable program				6,800	
10.0001 Total				6,297,582	579,088
Financing:					
Offsetting collections from:					
Federal funds (-)					
11.0001 Unobligated balance available, start of year:		-6,800			
21.4002 For completion of prior year budget plans			-941,018		
24.4002 For completion of prior year budget plans			941,018	361,930	
40.0001 Budget authority (Appropriation)				7,231,800	

Aircraft Procurement, Navy Program and Financing (In Thousands of dollars) FISCAL YEAR 1993		Budget Plan (Amounts for PROCUREMENT actions programmed)		
		1990 actua	1991 est.	1992 est.
Identification code	17-1508-0-1-051			
Program by activities:				
Direct program:				
Combat aircraft		3,481,077		
Trainer aircraft		321,629		
Other aircraft		163,319		
Modification of aircraft		1,369,264		
Aircraft spares and repair parts		1,013,449		
Aircraft support equipment and facilities		601,462		
		6,953,200		
Total direct program			7,100	
Reimbursable program				
Total				6,960,300
Financing:				
Offsetting collections from:				
Federal funds(-)				
Unobligated balance available, end of year:				
For completion of prior year budget plans		6,953,200		
Budget authority (Appropriation)				
40.0001				

**Aircraft Procurement, Navy
Program and Financing (in thousands of dollars) FISCAL YEAR 1993**

		Obligations			
		1990 actual	1991 est.	1992 est.	1993 est.
Identification code	17-1508-0-1-051				
Program by activities:					
Direct program:					
Combat aircraft					
Trainer aircraft	00.0301	3,087,187			
Other aircraft	00.0401	276,038			
Modification of aircraft	00.0501	138,883			
Aircraft spares and repair parts	00.0601	1,105,630			
Aircraft support equipment and facilities	00.0701	928,514			
Total direct program	00.9101	512,111			
Reimbursable program	01.0101	6,048,361			
Total	10.0001	7,100			
Financing:					
Offsetting collections from:					
Federal funds(-)	11.0001	-7,100			
Unobligated balance available end of year:					
For completion of prior year budget plans	24.4002	904,839			
Budget authority (Appropriation)	40.0001	6,953,200			

Aircraft Procurement, Navy
Program and Financing (in thousands of dollars) SUMMARY

Identification code	17-1508-0-1-051	Budget Plan (amounts for PROCUREMENT actions programmed)				
		1990 actual	1991 est.	1992 est.	1993 est.	
Program by activities:						
Direct program:						
00.0101	Combat aircraft	5,883,683	4,891,951	3,684,408	3,481,077	
00.0301	Trainer aircraft	99,262	159,154	324,629		
00.0401	Other aircraft		6,000	65,559	163,319	
00.0501	Modification of aircraft	1,522,487	1,025,341	1,548,382	1,369,264	
00.0601	Aircraft spares and repair parts	1,167,214	1,128,104	921,014	1,013,449	
00.0701	Aircraft support equipment and facilities	505,153	533,001	568,944	601,462	
00.9101	Total direct program	9,177,799	7,743,551	7,231,800	6,953,200	
01.0101	Reimbursable program					
10.0001	Total	9,181,425	7,750,151	7,238,600	6,960,300	
Financing:						
Offsetting collections from:						
11.0001	Federal funds(-)	-1,727	-6,600	-6,800	-7,100	
13.0001	Trust funds(-)	-1,886				
14.0001	Non-Federal sources(-)		-13			
17.0001	Recovery of prior year obligations					
Unobligated balance available, start of year:						
21.4002	For completion of prior year budget plans					
21.4003	Available to finance new budget plans	-60,600	-10,600	-15,100		
21.4009	Reprogramming from/to prior year budget plans	-77,122				
22.4001	Unobligated balance transferred to other accounts	47,008				
Unobligated balance available, end of year:						
21.4002	For completion of prior year budget plans					
24.4002	Available to finance subsequent year budget plans	10,600	15,100			
24.4003		60,714				
25.0001	Unobligated balance lapsing					
39.0001	Budget authority	9,158,399	7,748,051	7,216,700	6,953,200	
Budget authority:						
40.0001	Appropriation	9,389,266	7,810,452	7,231,800	6,953,200	
40.3601	Appropriation reactivated (unob bal)	-30,000				
40.7501	Reduction pursuant to P.L. 101-165 (-)	-12,867				
40.7502	Reduction pursuant to P.L. 101-511 (-)					
41.0001	Transferred to other accounts (-)	-188,000	-54,000	-15,100		
43.0001	Appropriation (adjusted)	9,158,399	7,748,051	7,216,700	6,953,200	
Relation of obligations to outlays:						
71.0001	Obligations incurred, net					
72.4001	Obligated balance, start of year					
74.4001	Obligated balance, end of year					
77.0001	Adjustments in expired accounts (net)					
78.0001	Adjustments in unexpired accounts					

Aircraft Procurement, Navy
Program and Financing (in thousands of dollars) SUMMARY

		Obligations			
		1990 actual	1991 est.	1992 est.	1993 est.
Identification code	17-1508-0-1-051				
Program by activities:					
Direct program:					
Combat aircraft	00.0101	6,457,024	4,935,790	3,693,241	3,551,215
Trainer aircraft	00.0301	163,314	245,699	318,867	318,311
Other aircraft	00.0401	11,039	12,482	14,339	155,722
Modification of aircraft	00.0501	1,255,832	1,145,567	1,557,850	1,389,971
Aircraft spares and repair parts	00.0601	1,151,842	1,096,486	925,599	1,005,527
Aircraft support equipment and facilities	00.0701	535,998	495,840	554,934	594,211
Total direct program	00.9101	9,575,049	7,931,664	7,185,830	7,014,957
Reimbursable program	01.0101	1,822	10,226	6,800	7,100
Total	10.0001	9,576,871	7,941,890	7,192,630	7,022,057
Financing:					
Offsetting collections from:					
Federal funds(-)	11.00001	-5,382	-6,600	-6,800	-7,100
Trust funds(-)	13.00001	-1,684			
Non-Federal sources(-)	14.00001	-14			
Recovery of prior year obligations	17.00001	-273,446			
Unobligated balance available, start of year:					
For completion of prior year budget plans	21.4002	-1,669,963	-1,474,295	-1,282,556	-1,328,526
Available to finance new budget plans	21.4003	-60,600	-10,600	-15,100	
Reprogramming from/to prior year budget plans	21.4009				
Unobligated balance transferred to other accounts	22.40001				
Unobligated balance available, end of year:					
For completion of prior year budget plans	24.4002	1,474,295	1,282,556	1,328,526	1,266,769
Available to finance subsequent year budget plans	24.4003	10,600	15,100		
Unobligated balance lapsing	25.00001	60,714			
Budget authority	39.00001				
Budget authority:					
Appropriation	40.00001	9,389,266	7,810,452	7,231,800	6,953,200
Appropriation rescinded (unob bal)	40.36001	-30,000			
Reduction pursuant to P.L. 101-165 (-)	40.75001	-12,867	-8,401		
Reduction pursuant to P.L. 101-5;1 (-)	40.7502		-54,000	-15,100	
Transferred to other accounts (-)	41.00001				
Appropriation (adjusted)	43.00001	9,158,399	7,748,051	7,216,700	6,953,200
Relation of obligations to outlays:					
Obligations incurred, net	71.00001	9,569,791	7,935,290	7,185,830	7,014,957
Obligated balance, start of year	72.40001	15,359,982	15,347,160	14,519,387	13,420,919
Obligated balance, end of year	74.40001	-15,547,160	-14,519,387	-13,420,919	-12,694,268
Adjustments in expired accounts (net)	77.00001	-18,659			
Adjustments in unexpired accounts	78.00001	-273,446			

Aircraft Procurement, Navy
Program and Financing (in Thousands of dollars) SUMMARY

	1990 actual	1991 est.	1992 est.	1993 est.
Identification code	17-1506-0-1-051			
\$0,0001 Outlays	9,030,508	8,963,063	8,284,298	7,741,608

Aircraft Procurement, Navy
Object Classification (in thousands of dollars) SUMMARY

		1990 actual	1991 est.	1992 est.	1993 est.
Identification code	17-1506-0-1-051				
Direct obligations:					
Other services:					
125.002 Purchases from industrial funds	42,796	49,200	46,259	56,011	
126.001 Supplies and materials	1,407,608	1,505,311	1,445,648	1,753,798	
131.001 Equipment	8,124,645	6,377,153	5,693,923	6,205,148	
199.001 Total Direct obligations	9,575,049	7,931,664	7,185,830	7,014,957	
Reimbursable obligations:					
Equipment					
231.001 Equipment	1,822	10,226	6,800	7,100	
299.001 Total Reimbursable obligations	9,576,871	7,941,890	7,192,630	7,022,057	
999.901 Total obligations					

Aircraft Procurement, Navy
 (Rescission proposal)
 Program and Financing (in thousands of dollars) FISCAL YEAR 1991

Budget Plan (amounts for PROCUREMENT

actions programmed)

	1990 actual	1991 est.	1992 est.	1993 est.
Identification code	17-1508-3-1-051			
Program by activities:				
Direct program:				
Combat aircraft	-1,506,752			
Aircraft spares and repair parts	-90,748			
Total				-1,597,500

Financing:

Unobligated balance available, start of year:

21-4002 For completion of prior year budget plans

Unobligated balance available, end of year:

24-4002 For completion of prior year budget plans

40-3001 Budget authority (Appropriation rescission P

**Aircraft Procurement, Navy
(Rescission Proposal)**

Program and Financing (in thousands of dollars) SUMMARY

Budget Plan (Amounts for PROCUREMENT actions programmed)					
Identification code	1990 actual	1991 est.	1992 est.	1993 est.	
Program by activities:					
Direct program:					
00.0101 Combat aircraft	-1,506,752				
00.0801 Aircraft spares and repair parts		-90,748			
Total			-1,597,500		
Financing:					
Unobligated balance available, start of year:					
21.4002 For completion of prior year budget plans					
Unobligated balance available, end of year:					
24.4002 For completion of prior year budget plans					
40.3001 Budget authority (Appropriation rescission p			-1,597,500		
Relation of obligations to outlays:					
71.0001 Obligations incurred, net					
72.4001 Obligated balance, start of year					
74.4001 Obligated balance, end of year					
Outlays					
90.0001					

Aircraft Procurement, Navy
(Recession Proposal)
Program and Financing (In Thousands of dollars) SUMMARY

Identification code	Obligations			
	1990 actual	1991 est.	1992 est.	1993 est.
17~1506~1~051				

Program by activities:	
00.0101	Direct program:
00.0101	Combat aircraft
00.0601	Aircraft spares and repair parts
10.0001	Total
Financing:	
	Unobligated balance available, start of year:
21.4002	For completion of prior year budget plans
24.4002	Unobligated balance available, end of year:
24.4002	For completion of prior year budget plans
40.3001	Budget authority (Appropriation reissue) P
Relation of obligations to outlays:	
71.0001	Obligations incurred, net
72.4001	Obligated balance, start of year
74.4001	Obligated balance, end of year
90.0001	Outlays

Aircraft Procurement, Navy
(Rescission Proposal)
Object Classification (in thousands of dollars) SUMMARY

	1990 actual	1991 est.	1992 est.	1993 est.
Identification code	17-1504-5-1-051			
Direct obligations:				
131.001 Equipment	- 1,389,825	- 127,800	- 79,875	
199.001 Total Direct obligations	- 1,389,825	- 127,800	- 79,875	
999.901 Total obligations	- 1,389,825	- 127,800	- 79,875	

Proc. of Aircraft & Missiles, Navy
Program and Financing (in thousands of dollars) SUMMARY

		1990 actual	1991 est.	1992 est.	1993 est.
Identification code 17-1505-0-1051					
	Relation of obligations to outlays:				
71.0001	Obligations incurred, net				
72.4001	Obligated balance, start of year				
74.4001	Obligated balance, end of year				
77.0001	Adjustments in expired accounts (net)				
90.0001	Outlays				
		1,716	-	-	-

Budget Activity 1: Combat Aircraft

(In Thousands)

FY 1993 Estimate	\$3,705,972
FY 1992 Estimate	\$3,679,622
FY 1991 Actual	\$3,412,640
FY 1990 Actual	\$5,883,683

Purpose and Scope of Work

Navy and Marine Corps combat aircraft are procured and remanufactured under this budget activity. These aircraft include fixed-wing and rotary configurations and are grouped generally into the categories of attack, fighter, and anti-submarine warfare (ASW). In addition to these general categories, aircraft which directly support combat operations in specialized missions, such as aerial assault, command and control, search and rescue, reconnaissance, observation, electronic warfare, airborne mine countermeasures, vertical onboard delivery and early warning are also procured in this budget activity. Funds are budgeted to procure fully equipped aircraft, including engines and avionics equipment, special ground support and training equipment, and technical publications. Funds are also budgeted to remanufacture existing aircraft into new configurations.

Advance procurement funds are also included to finance long lead time effort, materials, and equipments for the following year program.

Justification of Funds

Funds for procurement of seven different combat aircraft models, including one strike fighter, four helicopters, one electronic warfare, and one early warning type are budgeted in FY 1992 and FY 1993. The amounts shown below finance: (1) aircraft procurement; (2) advance procurement which is justified separately at the end of the budget activity; and (3) aircraft initial spares and repair parts which are budgeted and justified in budget activity 6.

EA-6B/Remanufacture (Electronic Warfare) PROMPTER

(Dollars in Millions)			
FY 1992		FY 1993	
Qty	Amt	Qty	Amt
Procurement	-	93.4	461.8
Advance Procurement	-	17.0	48.7
Initial Spares	-	-	46.1

The carrier-based EA-6B is an advanced electronic warfare (EW) aircraft which provides protection to Navy strike aircraft by jamming enemy radar-controlled weapons. Beginning in FY 1991, an improved version, the Advanced Capability (ADVCAP), will be initiated through a remanufacture program. Under this program older EA-6B aircraft will be stricken from the inventory, stripped down to bare airframe, and then rebuilt to the ADVCAP configuration. This process benefits the Navy by making substantial use of the original.

investment in these aircraft while providing significantly improved capability. The ADVCAP configuration will feature a new receiver processor group to close frequency gaps, improve radar integration and communication, countermeasures, and decrease reaction time. Other elements of ADVCAP include the upgraded J-52 P-409 engine for improved thrust, modified airfoil surfaces to improve stall margins and defensive maneuvering, and the inclusion of the Standard Attitude Heading Reference System and Global Positioning System (GPS).

The FY 1992 program of \$93.4 million funds non-recurring effort associated with start of the ADVCAP remanufacture and continuation of fleet support, ECM pod and other ancillary equipment procurements. Funding of \$461.8 million is requested in FY 1993 to remanufacture three ADVCAP aircraft.

F/A-18 C/D (Strike Fighter) HORNET

(Dollars in Millions)			
	<u>FY 1992</u>	<u>FY 1993</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>
Procurement	36	1,847.3	20
Advance Procurement		80.0	
Initial Spares		60.7	
			42.4

The F/A-18 Naval Strike Fighter is a twin-engine, multimission tactical aircraft. Designed to replace the F-4 PHANTOM and A-7 CORSAIR, the F/A-18 is employed in Navy and Marine Corps strike fighter squadrons. Two-seat versions with a Night Attack All-Weather capability are being built, as well as a version for tactical reconnaissance. The F/A-18 is missionized through selected use of external equipment to accomplish specific fighter or attack missions. This commonality offers the Operational Commander more flexibility in employing his tactical aircraft in changing scenarios. The primary design missions are fighter escort and interdiction, with fleet air defense and close air support as additional roles. On attack missions the same airframe, engine, flight control, and weapon systems are used as on fighter missions, thus excellent fighter and self defense capability is retained. The FY 1992 funding of \$1,847.3 million is for procurement of 36 aircraft. FY 1993 funding of \$1,407.8 million will procure 20 aircraft to provide for fleet inventory requirements.

CH/MH-53E (Helicopter) SUPER STALLION

(Dollars in Millions)			
	<u>FY 1992</u>	<u>FY 1993</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>
Procurement	20	454.7	20
Advance Procurement		54.1	
Initial Spares		4.2	
			8.1

FY 1992 includes funding for procurement of 16 CH-53E and four MH-53E helicopters. The CH-53E is a shipboard compatible, heavylift transport helicopter configured for both Marine and Navy missions. Marine

missions include amphibious/heliborne assault, providing lift and movement of cargo and troops, and heavylift shore operational requirements including tactical recovery of downed or damaged aircraft and equipment. Navy missions include vertical onboard delivery (VOD). The HR-53E helicopter is employed for airborne mine countermeasure missions and has significantly enhanced mission capabilities over the predecessor RH-53D.

AH-1W (Helicopter) SEA COBRA

<u>(Dollars in Millions)</u>			
<u>FY 1992</u>		<u>FY 1993</u>	
<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement	12	128.7	12
Advance Procurement	-	-	129.3
Initial Spares	4.7	-	.4

The AH-1W helicopter is an improved version of the Marine AH-1J, which incorporates an uprated twin-pack engine (T700-GE-401) for increased performance, reliability and hot day performance. It has a TOW missile capability, a 20mm nose-mounted turret gun, a wing stores armament management system for selective release of externally carried weapons and a HELLCIPE missile system. The AH-1W missions include escort and protection of troop assault helicopters, landing zone preparation immediately prior to the arrival of assault helicopters, landing zone fire suppression during the assault phase, and fire support during ground escort operations. The FY 1992 budget requests \$128.7 million for the procurement of 12 aircraft to build up the inventory level. The FY 1993 request includes \$129.3 million for 12 aircraft to continue the inventory buildup.

SH-60B (Anti-Submarine Warfare Helicopter) SEAHAWK

<u>(Dollars in Millions)</u>			
<u>FY 1992</u>		<u>FY 1993</u>	
<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
Procurement	12	205.5	12
Advance Procurement	38.5	47.2	
Initial Spares	8.5	4.5	

The SH-60B SEAHAWK is the airborne component of the Light Airborne Multi-Purpose System (LAMPS) MK III ship/air weapon system. LAMPS MK III is a computer integrated ship/helicopter system that increases the effectiveness of combatants for Anti-Submarine Warfare (ASW). The helicopter provides a remote platform for deployment of sonobuoys and torpedoes, processing of acoustic and magnetic anomaly detection sensor information, and an elevated platform for radar and electronic warfare support measures. The ship provides sensor processing, command and control, integration of LAMPS information gained from other sensors, the landing and traversing system, visual landing aids, and maintenance and support facilities for the aircraft. SH-60B secondary missions include anti-ship surveillance and targeting, search and rescue, vertical

replenishment, medical evacuation and communications relay. The SH-60B carries a crew of three, approximately 2,000 lbs of mission avionics, and has provisions for sonobuoys and MK-46 torpedoes. A block upgrade was incorporated in the FY 1990 production aircraft, including the Penguin missile, MK 50 torpedo compatibility, 99 Channel Sonobuoy Receiver, and GPS. \$205.5 million in FY 1992 funds the procurement of 12 helicopters to increase fleet inventory levels. Funding of \$223.7 million is requested in FY 1993 to procure 12 additional aircraft to continue to build fleet aircraft inventory levels.

SH-60F CV (Anti-Submarine Warfare Helicopter)

(Dollars in Millions)			
	FY 1992	FY 1993	
	Qty	Amt	Qty
Procurement	12	202.3	12
Advance Procurement			230.1
Initial Spares			41.3
	17.2	8.6	

The SH-60F CV ASW Helicopter provides carrier battle groups with inner zone ASW protection using dipping sonar and an on-board sonobuoy processor. Secondary missions include search and rescue, logistic support, medical evacuation, and plane guard. The ultimate users are ASW helicopter squadrons and CV class ships. Funds totaling \$202.3 million in FY 1992 and \$230.1 in FY 1993 are requested to procure 12 aircraft each year to continue the phased replacement of the aging SH-3H assets.

E-2 C (Early Warning) Hawkeye

(Dollars in Millions)			
	FY 1992	FY 1993	
	Qty	Amt	Qty
Procurement	6	470.9	6
Advance Procurement			523.9
Initial Spares			-
	39.0		
	23.2		11.6

The E-2C is a carrier-based airborne early warning/command and control system designed for fleet air defense. Additionally, it provides the battle group commander with a strike control and surveillance capability. The E-2C, first procured in FY 1972, has the same airframe as earlier models but is equipped with new avionics equipment, including a new radar antenna and passive detection system. This equipment provides an improved capability, including overland detection of air targets. A major feature of the system is its greatly enhanced reliability over previous models. Six E-2C aircraft at a cost of \$470.9 million are requested in FY 1992. The FY 1993 request of \$523.9 million will procure the final six aircraft to meet fleet requirements and fund production line termination.

Advance Procurement

The FY 1992 budget includes \$276.8 million for advance procurement of material and effort for FY 1993 production. The FY 1993 budget includes \$270.0 million for advance procurement to support planned FY 1994 procurements. An itemization of the requirements follows:

(Dollars in millions)	Aircraft Model	FY 1993		FY 1994	
		A/C Qty	A. P. in FY 92	A/C Qty	A. P. in FY 93
	LA-6B Remanufacture	3	17.0	9	48.7
	F/A-18 C/D	20	80.0	20	82.8
	C/MH-53	20	54.1	20	50.0
	SH-60B	12	38.5	12	47.2
	SH-60F	12	48.2	12	41.3
	E-2C	6	39.0	-	-

The advance procurement listed is required to ensure timely delivery of the planned FY 1993 and FY 1994 aircraft. The amounts budgeted for Contractor Furnished Equipment (GFE) items, engines and some major Government Furnished Equipment (GFE) items are required for long leadtime effort and material for the prime contractor and their vendors. This includes items such as castings, forgings, landing gear and production engineering requirements. For most GFE, requirements are calculated for each item of equipment, considering the planned aircraft quantity, production leadtime, and prime contractor installation leadtime (i.e., the amount of time the item is needed at the factory prior to aircraft delivery). Certain equipment, primarily avionics items, are budgeted as advance procurement to ensure meeting planned aircraft production schedules.

Budget Activity 2: Airlift Aircraft

	(In Thousands)	
FY 1993 Estimate	\$	-0-
FY 1992 Estimate	\$	-0-
FY 1991 Actual	\$	-0-
FY 1990 Actual	\$	-0-

Purpose and Scope of Work

This budget activity provides for the procurement of fleet tactical support aircraft needed to fulfill the Navy's airlift support requirements.

Justification of Funds

No funds are requested in FY 1992 or FY 1993 for procurement of aircraft in this budget activity.

Budget Activity 3: Trainer Aircraft

(In Thousands)

FY 1993 Estimate	\$324,629
FY 1992 Estimate	\$343,493
FY 1991 Actual	\$159,154
FY 1990 Actual	\$ 99,262

Purpose and Scope of Work

The Naval Air Training Command needs aircraft specifically designed for aircrew training in order to provide the Navy, Marine Corps, and Coast Guard with well trained and highly skilled pilots, navigators, and aircrew. Aircraft procured under Budget Activity 3 are used to train students in basic and advanced flying techniques, navigation, instrument flying and numerous other skills required before the transition to high performance fleet aircraft.

Justification of Funds

Funds totaling \$343.5 million are included in FY 1992 for procurement of 12 T-45A aircraft. \$324.6 million is requested in FY 1993 to procure another 12 T-45A aircraft.

T-45TS (Trainer) GOSHAWK

(Dollars in Millions)

	FY 1992	FY 1993
Oty	Amt	Oty
Procurement	12	322.5
Advance Procurement		21.0
Spares		24.8
		275.7
		49.0
		26.2

The T-45 Training System (T-45TS) is comprised of aircraft, simulators, academics, a training integration system (TIS), and contractor logistic support. The T-45A GOSHAWK aircraft is a derivative of the British Aerospace HAWK aircraft. The HAWK is a tandem seat aircraft powered by a single F-405 (Rolls Royce Adour turbofan engine). The T-45A is being adapted to provide the capability for carrier catapult takeoffs and arrested landings. The simulator suite includes both Instrument Flight Trainers and Operational Flight Trainers. Academics include textbook materials, classroom aids and a computer assisted instruction system. The TIS utilizes existing hardware and software to provide planning, scheduling, and tracking of training events in order to achieve required training efficiency. In FY 1992, \$322.5 million is requested for procurement of 12 aircraft. \$275.7 million is requested in FY 1993 for 12 additional aircraft to meet pilot training requirements.

Budget Activity 4: Other Aircraft

	<u>(In Thousands)</u>	
FY 1993 Estimate	\$163,287	
FY 1992 Estimate	\$165,559	
FY 1991 Actual	\$ 6,000	
FY 1990 Actual	\$ -0-	

Purpose and Scope of Work

Aircraft other than those associated with combat, airlift, and training missions are procured under Budget Activity 4.

Justification of Funds

A total of \$165.6 million is included in FY 1992 for procurement of nine HH-60H helicopters. The FY 1993 request of \$163.3 million will fund an additional seven HH-60Hs.

HH-60H Helicopter

	<u>(Dollars in Millions)</u>		
	<u>FY 1992</u>	<u>FY 1993</u>	
Procurement	Qty 9	Amt 165.6	
Advance Procurement	-	7	163.3
Spares	7.4	-	7.1

The HH-60H is a derivative of the SH-60B/F helicopters and is capable of deploying from Recovery, Assist, Securing and Traverse (RAST) system configured surface combatants. HH-60H aircraft support the primary mission of Night Strike Rescue (SR) and Special Warfare Support (SWS). The HH-60H is currently operated by the Naval Reserve, however the FY 1992 and FY 1993 funded aircraft will be deployed with SH-60F squadrons (6 SH-60F/2 HH-60H) to support battle group SR and SWS requirements. The FY 1992 request of \$165.6 million will procure nine aircraft and the FY 1993 request of \$163.3 million will procure seven aircraft for the SR and SWS mission requirement.

Budget Activity 5: Modification of Aircraft

	(In Thousands)		
FY 1993 Estimate	\$1,385,233		
FY 1992 Estimate	\$1,544,482		
FY 1991 Actual	\$1,025,341		
FY 1990 Actual	\$1,522,487		

Purpose and Scope of Work

The Aircraft Modification program provides for improvements to operational capability, maintainability, reliability, and safety and/or extends the service life of Navy and Marine Corps aircraft.

Justification of Funds

In order to fulfill inventory requirements, it has become mandatory to operate many older aircraft beyond their originally programmed service life and update their weapon systems so that they remain capable of continued effective operation in new threat environments. In addition, it is often more cost-effective to pursue selective airframe/avionics upgrade through modification programs rather than initiate more costly new construction efforts. To accomplish these two objectives, the Navy pursues service life extension and weapons modernization programs. These modifications involve complex engineering changes which require a major production effort and are often accomplished at a contractor's facility, with aircraft inducted into an assembly line for the conversion/modernization programs. A substantial portion of the funds requested in FY 1992 and FY 1993 are for modifications in these categories.

The FY 1992 and the FY 1993 budget requests also include funds for incorporation of other modifications intended to enhance the operational capabilities of in-service aircraft, their safety-of-flight, reliability and maintainability. Only essential modifications or changes which are necessary to satisfy the most urgent operational requirements are included in this budget request. The FY 1990 program in the amount of \$1,522,487 fully funds the procurement and installation of modification equipment, as well as concurrent maintenance and repair of all FY 1990 and prior uninstalled modifications including those kits furnished under warranty. The FY 1992 and FY 1993 budget requests fully fund similar efforts associated with the modification procurements. While appropriated under a separate line item in FY 1990, the installation requirements are included in each applicable modification line item beginning in FY 1991.

The following narrative summary highlights modification requirements by aircraft series and model.

A-4 Series Modification

\$4.4 million in FY 1992 is requested for the A-4 aircraft. The modification planned is the completion of the TA-4J J52-P-6 Engine Safety and Readiness Improvement. This modification will improve engine availability rates.

A-6 Series Modification

\$564.5 million and \$434.9 million are requested in FY 1992 and FY 1993, respectively for various A-6 modifications. The principal modification is the A-6 Block Upgrade Program. The \$542.2 million requested in FY 1992 and \$405.0 requested in FY 1993 are required for composite wings. Upgrade of the Composite wing to the SWIP Block I configuration provides increased survivability/vulnerability for the aging A-6 fleet pending the availability of the next generation follow-on AX (Aircraft Experimental) aircraft. Additional composite wings are required to maintain the medium attack inventory due to delays in the development of a suitable and affordable replacement for the A-6.

Funds in the amount of \$18.2 million are requested in FY 1993 for the J52-P-8 Safety and Readiness Improvement program which substantially increases the availability of the P-8 engine. Funds in the amount of \$2.5 million are requested in both FY 1992 and FY 1993 for the Standoff Air-to-Ground Weapons modification which provides enhanced Walleye II pods for the A-6E. \$4.4 million in FY 1992 and \$1.6 million in FY 1993 are requested for the Pylon Modification program which will correct a safety of flight problem by updating wiring in A-6E wing pylons and make these pylons compatible with the composite wing.

The Gated Night Vision Goggle (NVG) and Compatible Cockpit System will provide the A-6E with an enhanced low light ingress/egress navigation capability in response to an emergent requirement for night vision capability in the A-6. Funding in the amount of \$.6 million is requested in FY 1992 and \$4.0 million is requested in FY 1993 for this modification.

The Tactical Altitude Director System (TADS) Phase III provides crew members with a terrain detection/avoidance system which operates on a continuous basis in all modes. \$.9 million is requested in FY 1992 to complete this modification. \$.2 million is requested in FY 1992 for support of the Command Eject modification. This safety improvement will allow either aircrew member to initiate sequenced ejection for an incapacitated crewman.

Finally, \$13.6 million and \$3.6 million are requested in FY 1992 and FY 1993, respectively for the A-6 Block Upgrade II program. This program includes improvements or modifications to the constant speed drive/starter, weapons control system wiring enhancements, video tape recorder, and radar beacon forward air control target data communicator.

EA-6 Series Modification

\$71.6 million is requested in FY 1992 and \$58.1 million is requested in FY 1993 for EA-6 modifications. The most significant modification planned is the ALQ-99 Pods program (\$34.0 million and \$23.2 million requested in FY 1992 and FY 1993, respectively). These funds will be used to procure jammer pod components peculiar to the Improved Capability (ICAP) II update aircraft that are not scheduled to be remanufactured into the Advanced Capability (ADVCAP) configuration.

EA-6 Series Modification (Cont.)

Other modifications for the EA-6 include the Structural and Avionics Improvement modification (\$13.4 million requested in FY 1992 and \$10.1 million requested in FY 1993) which will correct structural deficiencies identified during fatigue testing and will modify some EA-6B avionics to correct poor reliability. Also planned is the J52-P-408 Safety and Readiness Improvement (\$4.2 million requested in both FY 1992 and FY 1993), which will vastly improve the availability rate of the engines.

Lastly, funds in the amount of \$20.1 million in FY 1992 and \$20.7 million in FY 1993 are requested for the ICAP II Block 89 Upgrade program. This modification will incorporate safety related improvements in all EA-6B Block 86 aircraft. This program includes improvements to the boarding platform, top deck cover antenna, fuel discharge system, and radar altimeter warning system. In addition, caution lights, a yaw rate indicating system and several fire safety features will be added.

AV-8 Series Modification

\$19.8 million is requested in FY 1992 and \$10.1 million is requested in FY 1993 for modifications to AV-8 aircraft. The \$.2 million and \$.3 million requested in FY 1992 and FY 1993, respectively are required for Omnibus Reliability & Maintainability (R&M) Improvements. This modification is retrofitting improvements, test deficiencies corrections, and warranty covered deficiencies corrections. \$7.4 million and \$9.4 million are requested in FY 1992 and FY 1993, respectively to fund the AN-217/GPS procurement. The Global Positioning System (GPS) provides successful Close Air Support operations with accurate and reliable navigational capability. Specifically, the GPS receiver which replaces the AN/ARN-118 will enhance the degree of capability to conduct day and night operations.

\$5.9 million requested in FY 1992 is for the Automatic Target Handoff System which utilizes preformatted messages to communicate with standard USMC, USAF and US Army digital communication devices. Basically, this system provides increased mission effectiveness and decreased pilot workload. Additionally, \$.8 million and \$.5 million in FY 1992 and FY 1993, respectively are requested for Interior/Exterior Lighting to enhance the lighting compatible with Night Vision Goggles (NVGs).

Lastly, \$5.5 million in FY 1992 is requested for the AN/ARC-210 (V) Electronic Counter Countermeasures Radio (ECCM) Radio. The AN/ARC-210 (V) radio system has the capability of countering the jamming signals by the addition of an ECCM containing several algorithms for anti-jamming in both UHF and VHF.

F-14 Series Modification

\$53.6 million requested in FY 1992 and \$43.7 million requested in FY 1993 are required for F-14 modification programs. Various deficiencies identified during aircraft fatigue tests will be corrected in the Structural Improvements Program. \$15.6 million requested in FY 1992 and \$13.2 million requested in FY 1993 are required to continue this program.

Two ongoing modifications programmed within the F-14 are the MXU-611 Jettison Release program (\$1.3 million requested in FY 1992) and the FLAP/SLAT System Improvement (\$3.5 million requested in FY 1992). The MXU Jettison release modification will minimize the risk of cartridge blow out due to inadvertent firing of the MXU-611. The FLAP/SLAT System improvement will correct several deficiencies in the maneuvering FLAP/SLAT system which is experiencing unacceptable high failure rates.

In addition, funds are requested for two programs which begin procurement in FY 1991. First, the AN/ALR-67 radar receiving set, countermeasures warning and control system is a replacement for current AN/ALR-45 and AN/ALR-50 radar and missile warning equipment. \$26.5 million in FY 1992 and \$21.1 million in FY 1993 are requested to provision the aircraft for this system. Secondly, the Joint Tactical Information Distribution System (JTIDS) provides line of sight, crypto-secure, jam resistant digital data and voice communications. \$4.9 million is requested for this program in FY 1992 and \$4.0 million in FY 1993.

Lastly, \$1.8 million and \$1.7 million are requested in FY 1992 and FY 1993, respectively for the Structural Data Recorder System (SDRS, or the AN/ASH-37). The AN/ASH-37 will record the flight parameters necessary to accurately determine, track, and manage the fatigue life usage of the aircraft and critical structural components. Fatigue life monitoring is the only means to ensure the structural life safety and to maximize the service life of fleet aircraft. This program provisions the aircraft. \$3.7 million is requested in FY 1993 to provision F-14 aircraft to receive APN-217/GPS. The GPS will provide three dimensional position, velocity and time information to suitably equipped users anywhere on or near the earth. GPS is designed to provide highly accurate passive position (16 meters), velocity and time to users worldwide in all weather conditions.

ADVERSARY Series Modification

A total of \$3.9 million is requested in FY 1992 and FY 1993 for the F-16N Structural Upgrade and the Follow-On Structural Fatigue program. The major structural upgrade includes change-out of the center fuselage as well as correcting deficiencies in the aft fuselage and wing areas. The Follow-On Structural Fatigue program will replace or correct known fatigue-sensitive structural components and incorporate avionics improvements such as the Structural Monitoring System and the AN/AUQ-3 System.

ES-3 Series Modification

\$5.6 million is requested in FY 1992 and \$5.2 million is requested in FY 1993 for the S-3A to ES-3A modification (Battle Group Passive Horizon Extension System (BGPHEES) Airborne Component). The ES-3A will be a dedicated replacement for the EA-3B using an augmented subset of the EP-3E Conversion-in-lieu-of-procurement (CILOP) sensor package. The ES-3A configuration includes the Global Positioning System (GPS). Additionally, the ES-3A will contain the BGPHEES interoperable data link and will be the airborne component to the BGPHEES AN/SLQ-50 surface terminal. The ES-3 is the dedicated replacement for the vintage 1960s EA-3B aircraft.

OV-10 Series Modification

\$4.2 million requested in FY 1992 and \$3.8 million requested in FY 1993 are required for OV-10 aircraft modifications. The principal OV-10 modification is the Block Upgrade I (A to D conversion). This upgrade will provide OV-10D configured aircraft with a Night Observation System capability to locate enemy troops, artillery positions, and armored units during periods of low visibility and at night. \$1.7 million and \$.2 million are requested in FY 1992 and FY 1993, respectively for continuation of this program.

Two other modifications within the OV-10 are the AN/AAR-47 Detection System (\$1.1 million requested in FY 1992 and \$1.8 million requested in FY 1993) and the AN/AVR-2/APR-39 Warning Receiver (\$1.3 million and \$1.8 million requested in FY 1992 and FY 1993, respectively). These self-defense suites enhance aircraft survivability. Funding is for provisions and support only.

F-18 Series Modification

A total of \$28.4 million and \$31.0 million is requested in FY 1992 and FY 1993, respectively for this program. Funds requested in this program are \$28.4 million in FY 1992 and \$25.8 million in FY 1993, respectively to correct discrepancies identified during testing and by so doing update delivered F-18 aircraft with components in the present configuration of in-production aircraft. This reduces logistics support costs through a reduction in the number and types of equipment that must be retained in the supply system to support F/A-18 operations. \$5.2 million is requested in FY 1993 to provision F/A-18 aircraft to accept the Global Positioning System (GPS). GPS is a space-based worldwide radio navigation aid that provides precise position, velocity, and time data under all-weather conditions.

H-46 Series Modification

The FY 1992 request of \$6.8 million and FY 1993 request of \$71.1 million funds seven separate modification efforts for the H-46. The major program 1: the Dynamic Component SLEP for which \$27.2 million in F. 1992 and \$29.7 million in FY 1993 are requested. This modification will incorporate design improvements to the critical safety items which have been identified by in-service failure and flight strain survey. The changes increase thickness of critical sections, and make other specific changes to increase resistance to fatigue damage. Also, \$11.8 million in FY 1992 and \$9.1 million in FY 1993 are requested for the Rotary Wing Head Pitch Shaft Modification. This modification will correct a known safety deficiency by modifying the pitch shaft and housing, and install new sealed corrosion-resistant liners.

\$20.3 million is requested in FY 1992 and \$18.3 million is requested in FY 1993 for the H-46 Block Upgrade. This program will provide additional fuel capacity to extend flight time, add a navigation capability, and improve aircraft floatation for emergency water landings. \$2.2 million is requested in FY 1992 for the AN/ARC-210(V) Electronic Countermeasures Radio (ECCM). This radio system has the capability of countering the jamming signals by the addition of an ECCM containing several algorithms for anti-jamming in both UHF and VHF. Additionally, this system provides capability for use as an Automatic Direction Finding (ADF) system receiver and is also compatible with the time signal from GPS and voice/data from the TSEC/KY-58 COMSEC system.

\$4.1 million in both FY 1992 and FY 1993 is requested for the AN/ASH-37 Structural Data Recorder System (SDRS). This system assists in the monitoring of critical components for a Structural Life Extension Program (SLEP). The system allows the computation of individual component operating life, allowing a much greater utilization of these components than could be obtained by using the required safe life conservative criteria. \$2.4 million and \$5.1 million are requested in FY 1992 and FY 1993, respectively for the Night Vision Goggle (NVG) Head-Up Display. This modification will incorporate the use of Head-Up Displays (HUD) with NVG. This will allow the pilot to quickly ascertain flight data while maintaining an outside visual scan.

Lastly, \$4.7 million is requested in FY 1993 for the Global Positioning System (GPS). The APN-217(V)5 is a GPS variant of the Standard APN-217 Doppler Navigation System (DNS). The APN-217(V)5 configures a military dual channel GPS within the APN-217 DNS. The embedded GPS will provide precise 24 hour all weather global navigation that is not dependent on ground stations.

H-53 Series Modification

\$50.2 million in FY 1992 and \$44.0 million in FY 1993 are requested for H-53 modifications. \$14.2 million is requested in FY 1992 and \$10.8 million in FY 1993 is requested to continue the Helicopter Night Vision System program. This improvement, which utilizes a Forward Looking Infrared Radar (FLIR) adapted from the Army's AH-64 Apache, will enable helicopters to maneuver and navigate at low altitudes, locate and land in landing zones, day or night, during periods of reduced visibility. Funds are also requested to complete the CH-53E Block Upgrade which started in FY 1988. This modification will maintain a common CH-53E configuration while increasing safety, survivability, and maintainability by the addition of machine gun installations, inflight hydraulic fluid replenishment capability, improved chip detectors, composite tail rotor blade, main rotor pylon covers, and cabin egress lighting (\$8.0 million requested in FY 1992).

In addition, funds are required for the AN/AAR-47 Detection System provisions (\$.7 million is requested in both FY 1992 and FY 1993). This improvement will provide warning of attack by surface-to-air and air-to-air missiles. Also planned is the continuation of the Crashworthy Fuel System improvement which is designed to contain fuel spillage during and following crash impact, thus improving crew safety. \$.9 million is requested in FY 1993 for this much needed improvement.

The Night Vision Goggles program will enhance low level night operations by improving the ability of the crew to see the terrain during low visibility. \$.9 million is requested in FY 1992 and \$2.7 million is requested in FY 1993 to procure cockpit lighting changes and AN/AVS-6 goggles. \$6.3 million is requested in FY 1992 and \$6.7 million in FY 1993 to begin the APN-217(V-5) Doppler Radar and GPS with Hover Coupler. This is a Global Positioning System (GPS) variant of the standard APN-217 Doppler Navigation System (DNS). The (V-5) configuration embeds a military dual channel GPS within the APN-217 DNS. The embedded GPS will provide precise, 24 hour, all weather, global navigation that is not dependent on ground stations. Also requested in FY 1992 and FY 1993 (\$.9.3 million and \$.4.6 million, respectively) is funding for the Global Positioning System (GPS). This system will provide the MH-53E with an improved navigation capability necessary to meet overall navigation and mission requirements. This program provisions the aircraft.

In addition, \$3.0 million is requested in FY 1992 and \$.8.8 million in FY 1993 for the MH-53E Engine Upgrade. This program will solve a safety problem by permitting the aircraft to recover from loss of one engine during towing operations on a hot day. Funds also are requested in FY 1993 (\$.3.8 million) for the Position Location Reporting System. This enables both battlefield and aircraft commanders the ability to track and communicate with air and ground forces. \$.8 million in FY 1992 and \$.2.0 million in FY 1993 are requested to continue the AN/APR-39A(XE-2) Upgrade which will incorporate increased survivability in hostile environments by providing warning and protection against radar threats.

H-53 Series Modification (Cont.)

Finally, funds are requested in FY 1992 for two radio programs. \$5.4 million is requested to complete the AN/ARC-182(V) radio modification. This state-of-the-art VHF/UHF combination radio will provide VHF-FM, VHF-AM, and UHF-AM/FM secure voice communications. The AN/ARC-182 will replace existing VHF-AM/FM and UHF-FM radios currently installed in the H-53 helicopters. \$1.7 million is requested for the AN/ARC-210(V) VHF/UHF AM/FM Transceiver program. The AN/ARC-210 will replace existing VHF-AM/FM and UHF-FM radios currently installed in the H-53E helicopters.

SH-60 Series Modification

A total of \$29.0 million and \$39.4 million is requested in FY 1992 and FY 1993, respectively. The major program for which funds are requested in FY 1992 (\$27.6 million) and FY 1993 (\$35.8 million) is the SH-60B Block Upgrade. This program will upgrade previously delivered aircraft to the latest production configuration. The following mission enhancements are included in this program: Advanced Lightweight Torpedo, 99 Channel Sonobuoy Receiver, Global Positioning System, AN/ARC-182 radios, various maintainability/operability items, and a Powertrain Upgrade.

\$1 million in FY 1992 and \$1.0 million in FY 1993 are requested for the AN/APR-39A Radar Warning Receiver program for the HH-60H aircraft. This change will increase the survivability in hostile environments by providing warning and protection against laser and radar threats. \$2.6 million in FY 1993 is requested for the NAVSTAR GPS program (\$1.5 million for HH-60H and \$1.1 million for SH-60F). This space-based radio and navigation system will provide three dimensional position, velocity and time information to suitably equipped users anywhere on or near the earth.

Finally, \$1.4 million is requested in FY 1992 for the completion of the Helicopter Emergency Egress Lighting (HEEL) program. This modification provides emergency lighting used during emergency night landing in the water. This system consists of LED tubing mounted in an inverted "U" shape around the inside egress hatches and doors.

VH-60 Series Modification

\$1 million in both FY 1992 and FY 1993 is requested for the continuation of support efforts to the Global Positioning Navigation system for executive transport helicopters.

H-1 Series Modification

\$118.2 million is requested in FY 1992 and \$61.8 million is requested in FY 1993 for modifications to the H-1 series aircraft. One of the major modifications ongoing is the AH-1 Block Upgrade. This change will provide improved power and armament capability to meet operational requirements in high altitude, hot temperature environments. Major improvements include incorporation of the T700 engine, the HELIFIRE Missile System, and an improved crashworthy fuel system. \$48.7 million is requested in FY 1992 to complete this vital upgrade program.

The other major modification planned for the AH-1 aircraft is the Night Targeting System. \$48.1 million is requested in FY 1992 and \$46.3 million is requested in FY 1993 for this program. This joint Israel/U.S. development and production modification will provide a night/adverse weather TOW missile and autonomous HELIFIRE missile capability.

Another improvement is the AH-1 Navigation System improvement utilizing the AN/APN-217 Doppler Navigation System and related cockpit instrumentation. This modification will enhance nighttime low level operational capabilities. \$6.8 million is requested in FY 1992 for the completion of this program. \$2.9 million is requested in FY 1992 for the Electronic Warfare Suite. This AN/AAR-47 Missile Warning Set (MWS) is a self-protection, electronic warfare unit designed to alert and protect aircraft from surface-to-air and air-to-air missiles. Provisions for interface with the APR-39(A)XE 2) and the AVR-2 Laser Warning receiver will also be incorporated. Also, \$3.3 million is requested in FY 1992 for AH-1W Structural Data Recording System (SDRS). These systems will record the flight parameters necessary to accurately determine, track, and manage the fatigue life usage of the aircraft and critical structural components.

Finally, funds are requested in FY 1993 for APN-217/GPS Upgrade and ARC-210 ECCM radio for the AH-1 aircraft. The AN/APN-217(V)5 (GPS embedded doppler), for which \$1.4 million is requested, will provide precise location information anywhere on the globe. \$1.9 million is requested for incorporation of ARC-210 ECCM radios which will ensure communication with ground forces in the worst environment.

Also included in this budget request are funds for improvements to UH-1 aircraft. The major modification to the UH-1 aircraft is the COMNAV Block Upgrade. \$3.2 million is requested in FY 1992 and \$5.1 million is requested in FY 1993 for this program. This upgrade includes the AN/APN-217(V)5 Doppler NAV/GPS which provides precise navigation and hover information through multi-purpose indicators. The AN/ARC-210 radio with HAVE QUICK/SINCgars provides the required secure voice communications. An AN/ARC-210 radio installed with a satellite communications antenna provides timely, secure voice OTH communications between the assault forces and the task force commander. In addition, \$3.7 million is requested in FY 1992 and \$2.4 is requested million in FY 1993 for the AN/AVR-2 and AN/APR-39 Warning Receiver Systems program for the UH-1 aircraft. These systems are being incorporated to increase the survivability in hostile environments by providing warning and protection against laser and radar threats.

H-1 Series Modification (Cont.)

Lastly, \$1.6 million is requested in FY 1992 and \$4.8 million in FY 1993 for the Night Vision Enhancements modification. This NVG mounted Head Up Display (HUD) will provide essential flight and navigation (from the APN-217 Doppler) data to the pilot and/or copilot via imagery applied directly through the NVG's. The NVG compatible exterior lighting will consist of fixed and strobe IR light elements to provide NVG compatible visual reference for adjacent aircraft.

H-2 Series Modification

The only program for which funding is requested is the SH-2G Program. \$108.2 million and \$107.2 million in FY 1992 and in FY 1993, respectively are requested for this program. Major modifications include extensive rework of dynamic component mounting structure, rework on severely corroded areas, modified webbing in the aircraft structure to alleviate cracking, and rewiring of the aircraft electrical system. The SLEP will also include a special mission kit consisting of UHF/VHF radio, missile warning set, jammer, forward looking infrared system and the Block Upgrade avionics equipment consisting of an acoustic processor, purpose display, 99 channel sonobuoy receiver, interface control unit 1553 data bus, enhanced tactical navigation system (TACNAV), TACNAV to TACNAV data transfer system, APN-217 doppler, and supporting integrated logistics support. This SLEP program will extend the service life of the aircraft to meet the requirement and maintain mission effectiveness against the projected threat of the mid-1990s and beyond.

H-3 Series Modification

\$39.5 million is requested in FY 1992 and \$31.9 million is requested in FY 1993 to fund H-3 series modifications. The SH-3H/G/D Service Life Extension Program is designed to extend the service life of the SH-3 past the year 2000 to provide essential CH helo and station SAR mission capability. Funds in the amount of \$7.7 million are requested in FY 1992 and \$2.9 million is requested in FY 1993 for the continuation of this program. Also requested is \$.2 million in FY 1993 for the Global Positioning System (GPS) which is a miniaturized GPS to be installed in the SH-3 aircraft. This system will provide independent 24 hour all weather navigational coverage.

In addition, funds are requested in FY 1992 and FY 1993 (\$31.8 million and \$28.8 million, respectively) for improvements to the VH-3D. The SLEP program for which \$30.5 million in FY 1992 and \$28.3 million in FY 1993 are requested respectively. This program is required to increase VH-3D service life from 7,500 to 14,000 hours, extend mission life to the year 2005 and qualify the aircraft at a higher maximum gross weight. Also requested are \$1.2 million and \$.5 million in FY 1992 and FY 1993 for incorporation of NAVSTAR GPS. This operational and safety and improvement program incorporates NAVSTAR GPS into 11 VH-3D executive transport aircraft.

EP-3 Series Modification

\$18.5 million is requested in FY 1992 and \$34.1 million is requested in FY 1993 for the EP-3 Modification Program. The \$18.5 million requested in FY 1992 and \$14.2 million of the FY 1993 request is for the Conversion-in-lieu-of-Procurement (CILOP) program to modify 12 aging P-3C aircraft to EP-3. The Sensor Improvement that provides the EP-3 with improved capability to deal with the increasingly complex and dense threat signal environment by improving system frequency coverage, applying state-of-the-art signal exploitation/processing/display techniques, expand direction finding coverage and accuracy, and increase intercept system sensitivity. \$19.8 million is requested in FY 1993 for the Sensor System Improvement. This program integrates new capabilities into the EP-3 Electronic Warfare Support Measures (ESM) weapon system to cope with the increasingly complex and dense threat environment. Improvements will be achieved by expanding the ESM frequency coverage, applying state-of-the-art signal exploitation/processing/display techniques, expanding direction finding (DF) frequency coverage, and expanding proforma signal processing capability.

P-3 Series Modification

FY 1992 and FY 1993 funding requests are \$14.9 million and \$51.6 million, respectively for P-3 modifications. Continuation of the classified Special Project Aircraft effort is requested with funds of \$4.0 million in FY 1992 and \$19.3 million in FY 1993.

The Update III Block Upgrade (\$8.6 million requested in FY 1992, and \$17.7 million requested in FY 1993) improves the acoustic processing system utilizing the Navy Standard AN/UYA-1, the ARR-78 Receiver, and USQ-78 Display and Control. Associated upgrades are required to interface with the P-3 main computer systems. \$5 million in FY 1992 and \$4 million in FY 1993 are requested for the RP-3 Block Modification. This is a block upgrade to the communication/navigation avionics in order to continue operational safety. Also included in this budget request is \$1.8 million in both FY 1992 and FY 1993 for continuation of the Omnibus Reliability and Maintainability (R&M) Improvement Program. These funds are required to implement various minor cost effective changes to the P-3 Weapon System. \$.4 million is requested in FY 1993 for the SDRS program. This system records flight parameters necessary to accurately determine, track and manage the fatigue life usage of the aircraft and critical structural components.

\$4.0 million in FY 1993 is requested for the Ground Proximity Warning System (GPWS). This system is a low-cost, highly reliable stand-alone commercial set. It is a reliable integration of on-board sensor data and provides an aural warning for excessive descent rate, terrain closure rate, inadvertent descent below glideslope and descent below minimum. Lastly, \$7.9 million is requested in FY 1993 for the Global Positioning System (GPS). This is a space-based radio positioning and navigation system that will provide three dimensional position, velocity, and time information to suitably equipped users worldwide in all weather conditions.

S-3 Series Modification

Modifications to the S-3 series aircraft require \$77.1 million in FY 1992 and \$17.8 million in FY 1993. The principal modification is the S-3 Block Upgrade for which \$77.1 million and \$13.5 million are requested in FY 1992 and FY 1993, respectively. The purpose of this program is to improve Anti-Submarine Warfare (ASW) capabilities of the acoustic, Electronic Sensor Monitor (ESM) and radar subsystems; introduce Electronic Countermeasures (ECM) and Harpoon missile capability; and, increase useful service life through a redesigned communication control group.

\$4 million is requested in FY 1993 for the Global Positioning System (GPS). The GPS modification will provide increased operational capability and mission effectiveness by providing precise navigation position information to the flight crew for ASW/ASUW prosecutions, on scene tactical coordination and turnover with other ASW/ASUW platforms, and mining.

Lastly, \$3.8 million is requested in FY 1993 for the Structural Data Recorder System (SDRS). Incorporation of the SDRS will allow better tracking of aircraft "hot spots" without recurring fleet inspections, allow for repair before costly rework is required, and maximize aircraft service life.

E-2 Series Modification

\$57.4 million is requested in FY 1992 and \$97.3 million is requested in FY 1993 to modify E-2 aircraft. The principal E-2 modification is the Block Upgrade II program. \$5.1 million is requested in FY 1992 and \$80.9 million is requested in FY 1993 for this program. This dynamic modification program consists of fourteen projects as follows: T56-A-427 Engine, Radar Group I and II, Tactical Command and Control System, Joint Tactical Information Distribution System (JTIDS), Standard Automatic Flight Control System, Carrier Aircraft Inertial Navigation System, Cockpit Instrument Lighting System, High Speed Processor, Global Positioning System, Standard Attitude and Heading Reference System, Enhanced Displays, and Improved Identification Friend or Foe System.

In addition, \$16.1 million in FY 1992 and \$8.6 million in FY 1993 are requested for the Structural Enhancement program. This program extends the operational life of the aircraft by replacing the wing center section and modifying other structural components. \$17.9 million requested in FY 1992 and \$1.5 million requested in FY 1993 are required to continue the Block Upgrade I program. This major improvement program includes a 10 KVA emergency generator set, microwave refractometer, various safety mods, pylon fixed fairings, a passive detection system, attitude gyro, vertical control surface replacement, TRAC-A radar antenna, cockpit electronic magnetic interference reduction, computer recorder reproducer, SPN-41 instrument landing system, and standard central air data computer.

E-2 Series Modification (Cont.)

\$9.3 million is requested in FY 1992 and \$6.3 million is requested in FY 1993 for the Aircrew Emergency Egress Survivability Modification. This allows personnel to egress without the present seat cushion/survival kit/life raft package hanging below the parachute. This safety modification modifies the crew seat to accommodate the revised oxygen and communication connections and to provide a mechanical seat tilt for crew seats in the Combat Information Center compartment to improve crew comfort.

\$2.0 million is requested in FY 1992 for the Outer Wing Panel (OWP) program. This effort will replace current OWPs which have demonstrated fatigue stress cracks and which are now limited to 2500 flight hours.

In addition, a structural fatigue data collection system will be installed to provide more accurate structural load data which should result in extended aircraft life. Also, \$6.9 million is requested in FY 1992 for completion of the AN/ARC-182 Radio.

Trainer Aircraft Series Modification

\$10.6 million is requested in FY 1992 and \$1.9 million is requested in FY 1993 for various modifications to Trainer aircraft. The Trainer aircraft line includes modifications budgeted for the T-34, T-38, T-44, TH-57, and TA-4 series aircraft. Within the account, \$.7 million and \$.6 million are requested in FY 1992 and FY 1993, respectively for the T-34 Landing Gear Actuation System modification which will reduce landing gear linkage stress. \$1.0 million is requested in FY 1992 and \$1.1 million is requested in FY 1993 for the FAA configuration update for the T-44A, T-34C, T-38, and TH-57 aircraft. \$.2 million is requested in both FY 1992 and FY 1993 for the T-44 Service Life Extension Program. Due to configuration changes that have delayed delivery of the T-45, the TA-4J aircraft must remain in service longer than expected. \$8.8 million is requested in FY 1992 for the TA-4J J-52-P6 Reliability and Maintainability Improvement program.

C-130 Series Modification

A total of \$16.8 million and \$ 11.3 million is requested in FY 1992 and FY 1993, respectively. \$11.7 million is requested in FY 1992 and \$7.3 million is requested in FY 1993 for the Avionics Systems Improvement Program (ASIP) (Phase III). This ASIP program will replace the old with the latest state-of-the art equipment. Among the modifications included are the incorporation or modification of the solid state propeller synchronization system, compass system, HF secure voice capability, combined altitude radar altimeter, engine instruments, flight detector, addition of the safety-related Ground Proximity Warning System, and many other avionics equipments. Together, these changes will substantially increase safety, reliability and maintainability.

In addition, \$3.7 million in FY 1992 and \$3.6 million in FY 1993 are requested for the Global Positioning System. \$1.5 million is requested in FY 1992 for the AN/ARC-210(V) Radio System. This system has the capability of countering the jamming signals by the addition of an Electronic Counter Countermeasure (ECCM) containing several algorithms for anti-jamming in both UHF and VHF. \$.4 million is requested in FY 1993 for the Structural Data Recorder system (SDRS). The SDRS will record essential flight parameters on a flight-by-flight basis to assure both aircraft and critical component fatigue usage tracking.

FEWSG Modification

The ability to accurately simulate the known and postulated electronic warfare characteristics and tactics of different threats for fleet training is a primary mission element of the Fleet Electronic Warfare Support Group (FEWSG) and its assigned aircraft and equipments. In support of this program, \$17.2 million is requested in FY 1992 and \$7.0 million is requested in FY 1993 for FEWSG modifications. The major program for which funds in the amount of \$14.3 million in FY 1992 and \$6.9 million in FY 1993 are requested is the FEWSG F/A-18 Modification. This modification will allow EA-6A and EA-7L aircraft that have reached the end of their useful service life to be retired by the end of FY 1992. Twenty F/A-18 aircraft are to be used as replacements. These aircraft will be used to perform missions requiring FEWSG ALQ-167, AST-4/6/7 and ALE-43 assets.

\$2.2 million is requested in FY 1992 for AN/ALT-40 Upgrade. This upgrade will make improvements to the system in order to enable continued realistic threat emitter simulation. Lastly, \$.7 million and \$.1 million are requested in FY 1992 and FY 1993, respectively for continuation of the AN/ALQ-167 and AN/ASF-4 Pods program.

Cargo and Transport Aircraft Series Modification

\$1.8 million is requested in FY 1992 and \$1.7 million is requested in FY 1993 for the Cargo and Transport Modification line item which includes modifications budgeted for the C-9, UC-12, and CT-39 aircraft.

\$1.6 million is requested in both FY 1992 and FY 1993 to continue the C-9B, UC-12, CT-39 Federal Aviation Administration (FAA) configuration update. Regulations require manufacturers of commercial aircraft and associated systems/subsystems to investigate all discrepant conditions, failures, and potential safety problems reported by all operators. The results of these investigations with recommended corrective action are reviewed/approved by the FAA and Navy and provided to all operators as service bulletins. \$.1 million is requested in FY 1992 for C-9 Service Standardization. \$.1 million is requested in FY 1992 and \$.2 million is requested in FY 1993 for the CT-39E/G Service Life Extension Program (SLEP) Modification.

E-6 Series Modification

A total of \$19.5 million and \$41.5 is requested in FY 1992 and FY 1993, respectively. The major modification for the EA-6 series aircraft is the E-6A Avionics Block Upgrade. \$17.0 million in FY 1992 and \$38.1 million in FY 1993 are requested for this program. This mission avionics upgrade will provide a significant increase in reliability and maintainability, enhance system compatibility, and provide increased supportability. This upgrade includes the incorporation of MILSTAR, Global Positioning System (GPS), and Frequency/Time Standard Distribution System (F/TSDS). Also, \$.2.5 million are requested in FY 1992 and \$.2.6 million in FY 1993 for Corrections To Deficiencies. These funds are required so that discrepancies which are discovered during follow-on E-6A testing can be immediately corrected in order to maintain necessary force levels. In addition, funds for the installation of in-warranty engine kits are budgeted in this program. Finally, \$.7 million is included in FY 1993 for the Global Positioning system.

Various Series Modification

Funds in the amount of \$.1 million in both FY 1992 and FY 1993 are requested for miscellaneous RG-1 improvements to A-7, F-4 and RF-4 aircraft.

Power Plant Changes

This program funds procurement of a large number of primarily small dollar engine modifications designed to extend engine life and incorporate needed reliability and maintainability improvements. In addition, funds for the installation of in-warranty engine kits are budgeted in this program. For these purposes, \$27.4 million is requested in FY 1992 and \$27.6 million is requested in FY 1993.

Miscellaneous Flight Safety Changes

\$.2 million is requested in both FY 1992 and FY 1993 for safety related modifications. This program provides for the procurement of kits to correct flight safety and operational deficiencies which are revealed during fleet operations.

Common ECM Equipment

\$101.4 million is requested in FY 1992 and \$126.8 million is requested in FY 1993 for common electronic countermeasure equipment. \$58.1 million is requested in FY 1992 and \$84.2 million is requested in FY 1993 for AN/ALR-67 hardware. The AN/ALR-67 provides detection and direction finding over the entire radio frequency spectrum of target tracking and missile control systems. This program provides for the procurement of this system for the F/A-18, A-6E and F-14 aircraft. In addition, the AN/AAR-47 Detection System provides warning of approaching missiles by radiation detection and initiates flare ejection. Aircraft supported by this system are the CH-53, CH-46, OV-10, AH-1, and UH-1 (\$14.6 million requested FY 1992 and \$4.7 million requested in FY 1993).

Funds are also requested for the AN/APR-39 and AN/AVR-2 hardware procurement. The AN/APR-39 radar warning receiver is designed to provide an air defense warning system against radar guided and radar aided threats. It provides central control and display functions for the aircraft Electronic Warfare suite and is required for operation, control, and display of the AN/AVR-2 and the AN/AAR-47. The AN/AVR-2 laser detection set is designed to reduce the susceptibility of helicopters to attack from laser illumination by providing an air defense warning system against laser guided and laser aided threats. The aircraft supported by these systems are the OV-10, H-53, HH-60H, AH-1, and UH-1. \$28.6 million is requested in FY 1992 and \$37.8 million is requested in FY 1993 for this program.

The aircraft provisions for all these systems are budgeted in the appropriate aircraft accounts.

Common Avionics Changes

\$12.4 million is requested in FY 1992 and \$23.6 million is requested in FY 1993 for common avionics equipment procurement. \$8.9 million is requested in FY 1992 and \$19.5 million in FY 1993 are requested for the NAVSTAR Global Positioning System (GPS) to procure hardware for the various aircraft platforms using GPS. \$3.5 million requested in FY 1992 and \$4.1 million requested in FY 1993 are required for the Structural Data Recording Set (SDRS). The SDRS will record the flight parameters necessary to accurately determine, track, and manage the fatigue life usage of the aircraft and critical structural components. This program procures the hardware in support of the platforms provisioning aircraft to receive this system.

Budget Activity 6: Aircraft Spares and Repair Parts

	(In Thousands)		
	FY 1993 Estimate	FY 1992 Estimate	FY 1991 Actual
FY 1992 Estimate	\$ 772,617	\$ 925,800	
FY 1991 Actual	\$1,019,356		
FY 1990 Actual	\$1,167,214		

Purpose and Scope of Work

Budget Activity 6 funds the procurement of the spare equipment and repair parts necessary to support Navy and Marine Corps aircraft procurement and operating programs. The budgeted funds provide for: (1) initial outfitting and pipeline quantities of reparable spares and repair parts for new and modified aircraft; and (2) buyout of shore and afloat site outfitting Depot Level Repairable spares from the Department of the Navy Stock Fund (DONSF) by means of the aviation outfitting account in the year of delivery, and a small number of non-stock funded replenishment spares.

Justification of Funds

The following table depicts the funding profile for the spares account.

	(\$ In Millions)		
	FY 1991	FY 1992	FY 1993
Initial Spares and Repair Parts	\$ 385.2	\$ 369.2	\$ 314.0
Replenishment Spares and Repair Parts	<u>634.1</u>	<u>556.6</u>	<u>458.6</u>
Total Aircraft Spares and Repair Parts	\$1,019.3	\$ 925.8	\$ 772.6

Initial Spares:

The initial spares requirements support the number, type and deployment of aircraft being procured, remanufactured and modified that are entering the operating program.

The items being procured under the initial spares category include engines, spares for equipments and parts which have been recently introduced and for which there is not sufficient leadtime for the Stock Fund to field. Funding requirements for engines, major avionics, and other equipments which qualify as initial spares are calculated on an item-by-item basis predicated on usage data, failure rates, and engineering estimates to predict usage. Requirements for other initial spares and spare parts are determined on a statistical basis, using the same methodology used in calculating major spare equipment requirements.

The following table shows FY 1992 and FY 1993 Initial Spares and Repair Parts support requirements by aircraft model:

Aircraft Model	A/C Qty	Spare Engines	Contract Spares	FY 1992			FY 1993			Total		
				Initial	Aviation Spares	Initial Total	Peculiar Aviation			Aviation		
							A/C Qty	Spare Engines	Contract Spares	Initial	Outfitting	Total
EA-6B	-	-	-	-	.6	.6	-	-	-	-	-	46.1
AV-8B	-	-	-	24.6	60.7	20	15.9	18.0	-	8.5	42.4	
F/A-18 C/D	36	13.5	22.6	.2	4.1	20	-	2.7	-	5.3	8.0	
CH/MH-53E	20	3.9	-	.2	4.7	12	-	4	-	-	.4	
AH-1W	12	3.9	.8	-	8.5	12	-	3.0	-	1.5	4.5	
SH-60B	12	-	6.2	2.3	17.2	12	1.2	6.2	-	1.4	8.8	
SH-60F	12	1.6	13.3	2.3	23.2	6	4.2	7.4	-	-	11.6	
E-2C	6	4.0	16.1	3.2	-	24.8	12	-	26.2	-	26.2	
T-45	12	-	24.8	-	33.0	-	-	-	-	.1	7.1	
S-3A	-	33.0	-	.5	7.4	7	7.0	-	-	-	.2	
HH-60	9	6.9	-	-	5.6	-	-	2	-	-	29.5	
Airborne Weapon Spares		5.6	-	-	32.2	-	-	29.5	-	-	-	
Training Device Spares		32.2	-	-	-	-	-	-	-	-	-	
Com. Grnd. Sup. Eqp.		-	-	-	-	-	-	-	-	5.9	-	
Repair Parts 1/		-	8.3	-	8.3	-	-	-	-	3.8	3.8	
Auto. Test Eqp. Parts 1/		-	9.2	-	9.2	-	-	-	-	-	-	
Conso. Auto Sup. Sys.		-	15.4	-	15.4	-	-	-	-	-	-	
Mod Spares		-	-	-	116.2	-	-	-	-	119.6	119.6	
TOTAL	62.9	125.5	33.5	33.1	369.2	30.7	130.4	15.9	17.4	314.0	314.0	

Totals may not add due to rounding.

1/ Supports equipment procured in B.A. 7.

Initial spares and repair parts are categorized as follows:

(1) Government Furnished Spare Aircraft Engines - (FY 1992 - \$62.5 million; FY 1993 - \$30.7 million).

Spare aircraft engine requirements are calculated on an actuarial basis to support the aircraft operating program with a confidence level of 80% to 90% that a spare engine will be on site and ready for issue when required by combat aircraft. Requirements are determined by establishing flying hours for each type/model aircraft and applying to that program the engine repair and removal rates to determine total engine requirement. On hand and on order assets are deducted from this gross requirement to arrive at a net procurement requirement. Requirements are thus established for initial outfitting of shore and afloat sites and to fill maintenance repair/overhaul pipelines.

(2) Contractor Spares Support - (FY 1992 - \$125.5 million; FY 1993 - \$130.4 million)

Contractor furnished spares and repair parts are provided for support of new, sophisticated weapons systems or subsystems during their development and fleet introductory phases until the Material Support Date is reached, at which time the Navy supply system assumes responsibility for providing these spares and repair parts. Contractor support is designed to preclude procurement of unnecessary or unstable spare parts before usage data is available or aircraft equipment design is stabilized. Requirements are readiness based calculated by comparing the new weapon system with actual usage data or historical data for a similar/same aircraft and utilizing the Weapon System Planning Document which provides the site activation schedule.

(3) Support Equipment (Spares) - (FY 1992 - \$33.5 million; FY 1993 - \$15.9 million)

The funding requested here provides for repair parts essential to the support (readiness) of SE end items required for the ground testing, servicing, handling and maintenance of specific weapon systems and their sub-systems. These SE end items require complete integrated logistic support, including repair parts, concurrent with delivery in order to adequately support the related weapon systems. SE spares funding also provides for contractor augmented support. Requirements are determined by the initial quantity of SE end items procured, the complexity/cost of the end items, the number of sites to be supported, the proximity/inter-support relationship of shore-based sites, and the period of time between equipment introduction and material support date.

(4) Aviation Outfitting Account Initial - (FY 1992 - \$33.1 million; FY 1993 - \$17.4 million)

The funding requested in this section procures spares from the Department of the Navy Stock Fund to field new weapons at ashore operating sites, using peacetime operating rates.

(5) **Modification Spares** - (FY 1992 - \$114.2 million; FY 1993 - \$119.6 million)

The investment program also includes procurement of initial repairable spares and repair parts to support the modification program financed under Budget Activity 5. Requirements include new procurement and/or the modification of spares and repair parts already in the inventory. Requirements are based on the corresponding elements being procured for the aircraft modification program.

Replenishment Spares:

Total funding requested for all replenishment spares programs is \$556.6 million in FY 1992 and \$458.6 million in FY 1993. The replenishment spares element of the budget is made up of: (a) the aviation outfitting support account which provides funding to procure outfitting spares from the Department of the Navy Stock Fund for afloat activities required to support the introduction of new or expanded populations of operating aircraft; (b) replenishment spares procured at the Naval Air Systems Command headquarters to support executive mission helicopters, interservice support requirements and miscellaneous aircraft systems; and (c) a small number of non-stock funded replenishment spares.

The following table shows the FY 1992 and FY 1993 replenishment spares funding levels by category:

	(\$ in Millions)	
	FY 1992	FY 1993
Aviation Outfitting Support		
Inventory Control Point Support	\$ 519.9	\$ 428.4
Interservice Support	5.5	5.7
Executive Mission Helicopters	.2	.1
F-5/F-16N/T-38 Aircraft	13.7	15.0
Miscellaneous Headquarters	14.4	7.8
	<u>2.9</u>	<u>1.6</u>
TOTAL	\$ 556.6	\$ 458.6

The replenishment spares are categorized as follows:

(1) **Aviation Outfitting Support** - (FY 1992 - \$519.9 million; FY 1993 - \$428.4 million)

This account funds the procurement for all afloat and shore activity outfittings required to support fleet operating aircraft. These requirements are procured by the Department of the Navy Stock Fund in advance and are subsequently "brought out" by this account. This approach has provided: a) improved material availability, b) improved asset management, and c) essential financial flexibility. The benefits are an improved logistics support posture and a corresponding improvement in aircraft readiness.

(2) Inventory Control Point (ICP) Support - (FY 1992 - \$5.5 million; FY 1993 - \$5.7 million)

Spare repairable components are managed by the Aviation Supply Office and the Ships Parts Control Center, which have been assigned program support responsibility for specific aircraft/weapon systems. Spares requirements are calculated by an individual line item stratification technique. The Uniform Inventory Control Point stratification requirements are computed utilizing DOD logistics guidance, Navy program planning data, and technical, procurement and inventory data maintained by the ICP. During stratification, these components are evaluated in terms of inventory on hand and on order, demand and experience, projected demand, and outfitting requirements.

(3) Interservice Support - (FY 1992 - \$.2 million; FY 1993 - \$.1 million)

Funds are required to reimburse the Army and Air Force for repairable material used during both in-house (organic) and service-administered commercial overhaul work of Navy airframes and other repairable components. Material requirements are calculated by the Army for the Navy's projected overhaul/rework program and are validated through negotiation between the Naval Air Logistics Center and Army representatives.

(4) Executive Mission Helicopters - (FY 1992 - \$13.7 million; FY 1993 - \$15.0 million)

Replenishment spares support requirements for the VH-3D and VH-60N Executive Mission aircraft. The Executive mission provides a transportation and evacuation capability for the Chief Executive, Heads of State and other visiting dignitaries. Eleven VH-3D aircraft and nine VH-60A aircraft operate from one primary site and two auxiliary sites. These helicopters operate for extended periods of time from numerous other locations necessitating selected item packup kits of replenishment spares. Material support requirements are calculated based on inputs from the operating squadron, the aircraft contractor and those peculiar requirements set forth by the Executive Branch. Executive Mission helicopters must have 100% spares support for repairable components. These components are procured so that a spare will be on hand when the component reaches half its projected service life.

(5) F-5/F-16N/T-38 Aircraft - (FY 1992 - \$14.4 million; FY 1993 - \$7.8 million)

Funds are required for the procurement of repairable material support from the Air Force for 40 F-5E/F, 26 F-16N and six T-38A aircraft operating at six sites. Material requirements are developed by the weapon system manager and NAVAIR based on past spares usage, the projected flying hour program and the number of sites operating the aircraft.

(6) Miscellaneous NAVAIR Headquarters Support - (FY 1992 - \$2.9 million; FY 1993 - \$1.6 million)

This includes material support requirements for the Fleet Electronic Warfare Support Group (FEWSG), Project Beartrap, Special Project Mission Avionics and VH-3A aircraft support. Spares requirements for FEWSG, Project Beartrap and Special Project Mission Avionics requirements are developed by the Naval Avionics Center in conjunction with the operational activities, based on past usage and anticipated system changes. VH-3A spares requirements are developed by the fleet operational squadron and NAVAIR, using historical data to project future material requirements.

Budget Activity 7: Aircraft Support Equipment and Facilities

<u>(In Thousands)</u>		
FY 1993	Estimate	\$ 601,462
FY 1992	Estimate	\$ 572,844
FY 1991	Actual	\$ 533,001
FY 1990	Actual	\$ 505,153

Purpose and Scope of Work

The FY 1992 request of \$572.8 million and the FY 1993 request of \$601.5 million will provide continuing vital effort in the following categories which support aircraft systems:

- (1) Common Ground Equipment, which provides funds for the Consolidated Automated Support System (CASS) equipment, other Automatic Test Equipment (ATE), Avionics Support Equipment (ASE), various aircraft systems trainers and training aids, and other aircraft ground support equipment including Rapid Deployment Force requirements and Mobile Maintenance Facilities for Marine expeditionary forces.
- (2) Aircraft Industrial Facilities, which provides calibration equipment for Navy standards and calibration laboratories. Funding also provides for capital improvements, modernization, and maintenance of government-owned contractor-operated, aircraft-producing industrial plants.
- (3) War Consumables, which provides funds for auxiliary fuel tanks, air refueling stores, pylons, and ejector racks and for the modification of these equipments. The items procured in this line are of a consumable nature and are related primarily to the number of sorties flown by combat and training aircraft.
- (4) Other Production Charges, which provides funds for miscellaneous production support and testing services, aircraft cameras, various equipment for United States Coast Guard aircraft, and aircraft pods and instrumentation packages supporting tactical aircrew combat training and mobile sea range systems.
- (5) Special Support Equipment, which provides funds in support of a classified program.
- (6) First Destination Transportation, which provides for the movement of newly procured equipment and material from the contractor's plant to the initial point of receipt by the government. These costs were previously budgeted in the Operations and Maintenance, Navy appropriation; however, they have been transferred to the procurement appropriations beginning in FY 1991 to more accurately reflect the entire acquisition cost of equipment.

Justification of Funds

Funding requirements for the FY 1992 and FY 1993 programs are outlined in the following table:

	<u>(Dollars in Millions)</u>	
	<u>FY 1992</u>	<u>FY 1993</u>
Common Ground Equipment	\$440.2	\$470.7
Aircraft Industrial Facilities	37.2	32.0
War Consumables	15.5	15.7
Other Production Charges	35.9	37.3
Special Support Equipment	37.9	39.4
First Destination Transportation	<u>6.1</u>	<u>6.3</u>
Total F.A. 7	\$572.8	\$601.5

Common Ground Equipment

Funding for the various segments of this program is depicted below and described in subsequent paragraphs:

	<u>(Dollars in Millions)</u>	
	<u>FY 1992</u>	<u>FY 1993</u>
(a) Consolidated Automated Support Equipment (CASS)	\$154.5	\$181.2
(b) Training Equipment	65.3	50.6
(c) Automatic Test Equipment (ATE)	83.0	116.1
(d) Aircraft Ground Support Equipment	43.6	48.8
(e) Mobile Maintenance Facilities	10.7	10.3
(f) Inventory Control Point (ICP)	22.8	17.3
Managed Support Equipment		
(g) Headquarters Managed Peculiar Support Equipment	11.9	12.2
(h) Gas Turbine Compressor Replacement	11.1	3.4
(i) Avionics Support Equipment	24.3	22.8
(j) Rapid Deployment Force/Maritime Prepositioned Ships	<u>13.0</u>	<u>8.0</u>
Total Common Ground Equipment	\$440.2	\$470.7

Consolidated Automated Support System (CASS) Equipment

The FY 1992 request of \$154.5 million and the request of \$181.2 million in FY 1993 is for the procurement of newly designed, modularly constructed automatic test equipment with computer assisted, multi-functional capability based on standardized hardware and software elements. The CASS design incorporates easily reconfigurable modules which can address varying test requirements and allows for modification to meet the demands of future technologies.

The CASS program will increase material readiness, reduce life cycle costs through standardization of equipment and all logistic elements, improve tester sustainability at depot and intermediate maintenance levels (including aircraft carriers), reduce the proliferation of unique test equipment, and provide Navy-wide test capabilities for existing and future avionic electronic support requirements. CASS will increase repair facility throughput capability, reduce spare parts and personnel training requirements and significantly reduce the space required for avionics testing aboard critically space-limited aircraft carriers.

Training Equipment

The FY 1992 request for training equipment is \$65.3 million and the FY 1993 request is \$50.6 million. The Training Equipment sub-line item provides funds for acquisition of trainers, training equipment, training parts, government furnished equipment and ground support equipment for training purposes, and modifications/changes relating to the above acquisitions. The procurements funded within the Training Equipment sub-line item are limited to: (1) training devices and equipment and related modifications for generalized training programs which provide skills common to more than one weapon system; (2) trainers for out-of-production aircraft; and (3) GFE in support of courses at the Navy Formal Schools. Training related to out-of-production aircraft is dependent upon these funds for all acquisitions, specific trainer-peculiar changes, modification/modernization, and user-generated changes and replacements. The Training Equipment sub-line item is broken into two major categories: General Training Equipment, and Modification/Modernization of Trainers. The following tables display funding profiles within the Training Equipment sub-line item:

General Training Equipment

	(In Thousands)	
	FY 1992	FY 1993
Air Traffic Control Trainers	3,705	2,355
"A" School Trainers	1,665	2,046
Total General Training Equipment	\$ 5,370	\$ 4,401

Modification/Modernization of Trainers Requirements, including GFE for out-of-production weapon systems

Program	(In Thousands)	
	FY 1992	FY 1993
A-6E	6,462	340
C-2A	1,990	1,950
E/K/C-130	2,328	0
F-14A	15,705	12,460
GFE for Formal Schools	3,860	2,580
H-1	0	135
H-2	8,965	1,355
H-3	650	0
P-3A/B	6,566	7,615
S-3A	4,875	3,635
H-46	7,825	7,610
H-53D	0	7,500
EP/ES-3	665	390
AV-8B	0	600
Total Modification/Modernization of Trainers	\$59,891	\$46,170

ATE (Automatic Test Equipment)

The budget request includes \$83.0 million in FY 1992 and \$116.1 million in FY 1993. The ATE segment of the Common Ground Equipment budget line item was established to broaden this category of support equipment acquisition formerly limited to VAST (Versatile Avionics Shop Test). The ATE account has funded the procurement of the Tailored MINI-VAST, as well as a family of module testers.

The FY 1992 and 1993 ATE programs include funding for the Maintenance Data Processing Ground Stations (MDPCS), portable ground stations used to support maintenance scheduling by downloading engine and structure usage and fatigue data to ensure safety of flight. The budget request also includes funding for Test Program Set (TPS) Translation/Offload necessary to transition existing test equipment software to CASS as it becomes operational.

Aircraft Ground Support Equipment

The Aircraft Ground Support Equipment element under the Common Ground Equipment line item provides for the initial outfitting of Common Support Equipment under NAVAIR inventory and technical management. These Support Equipment (SE) end items are required for ground testing, servicing, handling, and maintenance of aircraft and their systems. SE items acquired under this budget line item include aircraft propulsion test systems, mobile generators, frequency converters, and other aircraft handling equipment.

A comprehensive acquisition plan has been developed for each FY 1992/1993 SE item to: (1) ensure that the equipment is ready for procurement by the budget year; (2) to determine the type of procurement action to be initiated (multi-year, etc.); (3) verify the inventory objective, and; (4) ensure the consideration of required integrated logistic support elements.

The Support Equipment (SE) which will be procured are determined through one of the following processes:

1. The direct result of the SE RDT&E Program (these are items required to support advanced aircraft systems).
2. Reprocurement of current SE required to respond to meet outfitting shortages.
3. Improved versions of current SE required to support expanded airborne equipment capabilities or advanced airborne equipment (electrical servicing equipment, ground air conditioners, etc.).
4. Major modifications of existing SE.
5. Equipment developed to improve the capability of the Fleet and/or to improve safety (aircraft towing equipment, non-destructive inspection equipment, etc.).

To meet requirements in a timely manner, \$43.6 million is requested in FY 1992 and \$48.8 million is requested in FY 1993.

Mobile Maintenance Facilities

\$10.7 million is requested in FY 1992 and \$10.3 million is requested in FY 1993 for Mobile Maintenance Facilities. This program provides for the acquisition of mobile facilities and related equipment to support Marine Corps Expeditionary Forces and Navy contingency/mobilization aircraft and weapon system maintenance operations. The concept is to provide rapid-response mobility by the use of relocatable maintenance shelters. Execution of the Marine Corps Aviation mission is dependent on a highly mobile and functionally independent aircraft maintenance support capability.

The basic equipments procured under this sub-line item are the container (Van), environmental control unit, ISO loading systems, running gear for ground transport, and frequency converters.

Inventory Control Point (ICP) Managed Support Equipment (SE)

ICP Managed SE funds the procurement of end items of Peculiar Support Equipment (PSE) for out-of-production weapon systems, and all Common Support Equipment (CSE) under the budget, procurement and inventory control of the Aviation Supply Office (ASO), Philadelphia, and the Ships Parts Control Center (SPCC), Mechanicsburg, PA. PSE and CSE end items are normally introduced into the fleet through NAVAIR development and initial procurement. When design is completed and procurement packages become available, the items are sent to ASO or SPCC inventory management to be funded under this sub-line. Currently, ASO manages some 10,500 individual repairable SE end items whereas SPCC manages some 500 items, primarily cryogenic and armament equipment.

The budget requirements for this element are categorized as follows:

- a. Increased quantities of out-of-production aircraft PSE and CSE required for site outfitting.
- b. Replacement out-of-production aircraft PSE and CSE resulting from wear-out and attrition.
- c. Increased quantities of out-of-production aircraft PSE and CSE required for allowance augmentation.

Sample SE end items procured under this sub-line item include aircraft jacks, aircraft tow bars, hoisting slings, armament handling equipment and maintenance platforms.

To support this effort, \$22.8 million is requested in FY 1992 and \$17.3 million is requested in FY 1993.

Headquarters Managed Peculiar Support Equipment

This budget sub-line provides funds to replace certain in-use Peculiar Support Equipment (PSE) assets that are now only marginally effective due to obsolescence or to the unavailability of associated logistics support. Of late 1960 and early 1970 vintage, the applicable vendors no longer manufacture the PSE items or associated repair parts. Alternate sources are not available. As a consequence, a replacement item that is logically supportable must be designed and produced. In addition, this sub-line provides for completion of the design and initial production of (1) certain PSE items that for various reasons were not funded during the production phase of the weapon systems, and (2) modification of PSE to extend its useful service life.

\$11.9 million is requested in FY 1992 and \$12.2 million is requested in FY 1993 for this program.

Gas Turbine Compressor (GTC) Replacement

The budget includes \$11.1 million in FY 1992 and \$3.4 million in FY 1993 to finance the acquisition of new universal Jet Aircraft Start Units (JASU) capable of starting all Navy aircraft requiring a ground start power cart.

Aeronautics Support Equipment

The FY 1992 request of \$24.3 million and the \$22.8 million requested in FY 1993 will provide for the acquisition of several common avionic support equipment items: AN/USM-406(V) Countermeasures Test Set; AN/APM-455 Radar Beacon Test Set; Pressure/Temperature Test Set; Common Bomb Rack/Launcher Test Set; AN/AWN-96 Weapon Control Test Set; and the Instrument Repair Test Set.

The AN/USM-406(V) is an electronic warfare countermeasure test set used in organization-level maintenance support of a variety of EW equipment. The Radar Beacon Test Set is a portable, battery powered test set which will provide rapid organization level test of the Automatic Carrier Landing System (ACLS) with greater accuracy and reliability. The new portable Pressure/Temperature Test Set is designed for both flight line and intermediate maintenance in checking performance characteristics of aircraft airspeed, altimeter, and engine pressure ratio system. It will also provide temperature simulation and pressure data required by the Standard Central Air Data Computer. The Common Bomb Rack/Launcher Test Set is an intermediate/depot tester that provides pass/fail status of uninstalled bomb racks and missile launchers. The Aircraft Weapon Control Test Set (AWM-96) is an organizational level test set for all platforms that implements the MIL-STD-1760 aircraft stores electrical interconnection system. The Instrument Repair Test Set is used for repair of aircraft instruments. It is required at selected field activities to be used on various aircraft such as SH-60 and P-3.

Rapid Deployment Force/Maritime Prepositioned Ships

The \$13.0 million requested in FY 1992 and the \$8.0 million requested in FY 1993 will procure additional Support Equipment for upgrading three Marine Amphibious Brigades. This support equipment (SE) will support aircraft configuration changes and replace/modernize outdated SE utilized in the RDF mission.

Aircraft Industrial Facilities

Funding is requested for the following categories of equipment:

	(Dollars in Millions)	
	FY 1992	FY 1993
Calibration Equipment	\$14.3	\$14.8
Contractor Facilities	22.9	17.2
Total Aircraft Industrial Facilities	\$37.2	\$32.0

Calibration Equipment

The calibration program provides the fleet with a means to ensure that Support Equipment (SE) is operational and accurate. Calibration is the process of periodically comparing the performance of items of SE to that of equipment of known and greater accuracy. This accuracy must be traceable to the National Bureau of Standards. Calibration includes any adjustments to the SE that may be required.

Calibration funds are used to procure calibration standards and ancillary equipment required to support Aviation SE. Approximately 100 fleet intermediate level calibration laboratories, 30 Navy Calibration Laboratories (Depot) and five Standards Laboratories are supported through these procurements. Standards are used to initiate capability, expand capabilities, improve efficiency of production, reduce manhours and to replace obsolete equipment.

Contractor Facilities

The contractor facilities program provides for capital maintenance, modernization, improvements, emergency repairs, fire protection, and safety requirements for government-owned, contractor-operated, aircraft-producing industrial plants and for replacement/restoreation of government-owned production equipment in use on Navy programs at these plants. Facilities management contracts require that the government fund capital maintenance projects as required. These projects apply to Naval Weapons Industrial Reserve Plants (NWIRPs) at Bloomfield, Conn.; Dallas, Texas; and Bethpage, New York.

War Consumables

\$15.5 million is requested in FY 1992 and \$15.7 million is requested in FY 1993 for War Consumables. The War Consumables program funds procurement of those airborne equipments which can be suspended, released, or jettisoned from aircraft. Items are bought in this account to satisfy inventory objectives which are determined by such factors as the numbers and types of using aircraft, the mission of aircraft, and attrition and pipeline requirements. The FY 1992/1993 requests include funding for a follow-on procurement of External Fuel Tanks which provide combat aircraft with extended mission range. The FY 1992 and FY 1993 programs also will fund the procurement of common bomb racks and launchers including release mechanism upgrade kits to prevent inadvertent release of missiles during carrier arrestments.

Other Production Charges

The \$35.9 million requested in FY 1992 and the \$37.3 million requested in FY 1993 will provide for the following:

- (a) Government-Furnished Equipment (GFE) production support which includes testing services, production data reviews, technical publications, repair of damaged or defective GFE, and procurement of Navy Stock Fund items necessary for fleet installation of technical directives (i.e., minor modification kits and other hardware changes).
- (b) Procurement of certain Navy avionics equipment for installation in Coast Guard aircraft.
- (c) Procurement of reconnaissance and other aerial cameras.
- (d) Procurement of instrumentation packages used by aircraft participating in Mobile Sea Range exercises.
- (e) Procurement of pods for the Tactical Aircrew Combat Training System (TACTS).

Special Support Equipment

Funding requested in FY 1992 (\$37.9 million) and in FY 1993 (\$39.4 million) will support a classified program.

First Destination Transportation Charges

The budget requests \$6.1 million in FY 1992 and \$6.3 million in FY 1993 for the movement of newly procured equipment and material from the contractor's plant to the initial point of receipt by the government. This program, previously funded in the Operation and Maintenance, Navy appropriation, has been transferred to the procurement appropriations to more accurately reflect the full cost of equipment acquisition.

**COMPARISON OF FY 1991 PROGRAM REQUIREMENTS AS REFLECTED IN FY 1991 PRESIDENT'S BUDGET
WITH FY 1991 PROGRAM REQUIREMENTS SHOWN IN FY 1992/FY 1993 PRESIDENT'S BUDGET**

		<u>(In Thousands of Dollars)</u>		Increase (+) or Decrease (-)
Total Program.	Requirements per 1991 Budget	Total Program Requirements per 1992/1993 Budget	\$ 3,412,640	
Combat Aircraft.....	\$ 6,521,184	-	-	-\$3,108,544
Airlift Aircraft.....	-	-	-	-
Trainer Aircraft.....	305,939	159,154	-	146,785
Other Aircraft.....	-	6,000	+	6,000
Modification of Aircraft.....	1,135,044	1,025,341	-	109,703
Aircraft Spares and Repair Parts.....	1,288,542	1,019,356	-	269,186
Aircraft Support Equipment and Facilities..	587,891	533,001	-	54,890
Undistributed Reduction.....	-	(9,441)	-	9,441
Reimbursable Program.....	6,600	6,600	-	-
TOTAL FISCAL YEAR PROGRAM.....	\$ 9,845,200	\$ 6,152,651	\$ 3,692,549	

EXPLANATION BY BUDGET ACTIVITY

Combat Aircraft (-\$3,108.5 million)

Major changes in this budget activity are associated with the following Congressional actions including specific net changes of -\$1,621.9 million and application of contractor support services and discount airfare savings reductions of \$4.8 million:

Program	Qty	Amount	Program	Qty	Amount	Program	Qty	Amount
A-12	-8	-\$1,174.4	F-17A/D/Refsg.	-18	-\$ 9.4	V-22 Adv.	Proc.	+\$ 165.0
A-12 Adv. Proc.	+	264.5	F/A-18	-	446.1	SH-60B	+	15.1
AV-8B (MYP)	-	17.2	F/A-18 Adv. Proc.	-	40.0	SH-60F	-	.4
AV-8B Adv. Proc.	+	40.0	CH-53E	-23	- 376.9	E-2C	-	.5
FA-6B	-	.6	CH-53E Adv. Proc.	-	25.3	P-7 Adv. Proc.	-	20.5
						Total	-49	-\$1,626.7

Other changes include proposed rescissions of \$1,488.8 million based on A-12 (\$37.5 million regular funding and \$554.5 million advance procurement) and F-14 Remanufacture (\$770.5 million regular funding and \$126.3 million advance procurement) programs that have been terminated; an increase to the SH-60B program required \$9.8 million for airframe pricing and additional support requirements partially offset by reduced advance procurement requirements of \$2.8 million; and a decrease to the SH-60F program of \$9.9 million with an equal increase to its advance procurement account for increased long lead engine and GFE requirements. Additionally, DOD1415 reprogrammings are required in the EA-6B and AV-8B programs transferring advance procurement funds to the regular accounts (\$46.6 million and \$40.0 million respectively) since there are no aircraft being procured in FY 1992 and funds are required to complete support requirements.

Trainer Aircraft (-\$146.8 million)

The change in this budget activity reflects Congressional action cancelling the planned FY 1991 procurement of 12 T-45A aircraft with a reduction of \$148.1 million including application of general Congressional reductions for contractor support services, \$1.3 million plus a DOD1415 reprogramming of \$44.9 million appropriated as advance procurement is needed in the regular account to fulfill support requirements.

Other Aircraft (+\$6.0 million)

The addition of \$6.0 million to this budget activity is the result of Congressional action funding advance procurement requirements for a FY 1992 procurement of HH-60H aircraft.

Modification of Aircraft (-\$109.7 million)

Congressional action resulted in a decrease of \$106.7 million including specific net reductions of \$65.5 million and general reductions of \$39.3 due to savings from retiring obsolete aircraft and \$1.9 million less in contractor support services from the following programs:

Program	Amount	Program	Amount	Program	Amount
A-3 Series	-\$.1	EP-3 Series	-\$.2	E-6A Series	-\$.1
A-6 Series	+ 14.5	P-3 Series	- 68.8	H-2 Series	- .1
A-7 Series	- .1	S-3 Series	- .2	Common ECM	- 4.6
F-4 Series	- .1	Trainer A/C	- 4.6	Common Avionics	- 12.2
RF-4 Series	- .1	Cargo & Trans	- 6.4	Total	-\$106.7

Other reductions include \$1.2 million from the A-4 Series due primarily to the repricing of the TA-4 J52-P-6 Safety & Readiness Improvement (OSIP 93-86); \$1.3 million from the A-6 Series reflecting a reduction in the Standoff Air-to-Ground Weapons (OSIP 91-86); \$.6 million from the SH-60 Series due to a minor repassing of Block Upgrade I (OSIP 4-9); \$10.3 from the H-1 Series due largely to reduced installation requirements; \$28.5 from the E-2 Series resulting from repassing of Structural Enhancements (OSIP 121-87) and a reduction in the Outer Wing Panels and (OSIP 87-88); \$.3 million from the Trainers Series for minor price adjustments; and \$2.5 million from the C/KC-130 Series resulting from repricing the Phase III Avionics Systems Improvement Program (OSIP 70-85).

Additional changes are increases of \$.6 million to the EA-6 Series for several realignments including the ICAP-2 Block 89 Upgrade (OSIP 26-90); \$9.0 million to the AV-8B Series for the Safety, Reliability & Maintainability program (OSIP 14-84); \$3.1 million to both the F-18 Series and the H-46 Series for Correction of Discrepancies (OSIP 11-84) and the new requirement for Pitch Shaft (OSIP 27-91) respectively; \$5.5 million to the H-3 Series for the second year of the VH-3D SLEP (OSIP 25-90); \$3.0 million to the EP-3 Series to continue support for the CHOP program (OSIP 48-81); \$4.2 million to the S-3 Series for acceleration of the MK-50 Compatibility modification (OSIP 13-89); \$1.2 million to the FWSG aircraft series for AN/ALQ-167 and AN/AST-4 requirements (OSIP 119-83); \$7.2 million to the E-6A series for Correction of Deficiencies (OSIP 13-90); and \$4.8 million to the Power Plant Changes Line for emergent engine modification requirements.

Aircraft Spares and Repair Parts (-\$269.2 million)

The change in this budget activity results from Congressional decreases of \$156.6 million based on reduced or cancelled aircraft procurement: A-12 (-\$86.0 million), F-18 (-\$21.9 million), CH-53 (-\$24.7 million), and T-45 (-\$24.0 million), and proposed rescission of \$108.7 million based on A-12 and F-14 terminations. Additionally there has been a realignment of -\$10.6 from initial spares to replenishment based on revised cutfitting requirements, and minor repassing of initial spares requirements totalling -\$3.9 million.

Aircraft Support Equipment and Facilities (-\$54.9 million)

A specific Congressional reduction of \$3.0 million, application of an additional \$1.9 million of general Congressional and other reductions, and a reduction of \$50.0 million due to reduced Consolidated Automated Support System procurement under the Common Ground Equipment line account for the changes in this budget activity.

**COMPARISON OF FY 1991 FINANCING AS REFLECTED IN FY 1991 PRESIDENT'S BUDGET
WITH FY 1991 FINANCING AS SHOWN IN FY 1992/FY 1993 PRESIDENT'S BUDGET**

	<u>Financing per 1991 Budget</u>	<u>Financing per 1992/1993 Budget</u>	<u>Increase (+) or Decrease (-)</u>
Program Requirements (Total).....	\$ 9,845,200	\$ 6,152,651	-\$3,692,549
Program Requirements (Service account).....	(9,838,600)	(6,146,051)	(-3,692,549)
Program Requirements (Reimbursable).....	(6,600)	(6,600)	(-)
Less:			
Anticipated Reimbursements.....	6,600	6,600	-
Add:			
Unobligated balance available to finance subsequent year budget plans.....	-	15,100	+ 15,100
Proposed appropriation rescission.....	-	1,597,500	+ 1,597,500
Reduction pursuant to P.L. 101-511.....	-	8,401	+ 8,401
Transferred to other accounts.....	-	43,400	+ 43,400
Appropriation.....	\$ 9,838,600	\$ 7,810,452	-\$2,028,148

EXPLANATION OF CHANGES IN FINANCING

The decrease in program requirements is the result of Congressional reductions of \$2,028,148,000 including distribution of general Congressional reductions of \$8,401,000 and \$39,300,000. Other financing changes include a proposed DNI 415 Reprogramming Action transferring \$13,400,000 out of the appropriation, an anticipated rescission amount of \$1,597,500,000, and an unobligated balance of \$15,100,000 carried forward for later reprogramming requirements.

**COMPARISON OF FY 1990 PROGRAM REQUIREMENTS AS REFLECTED IN FY 1991 PRESIDENT'S BUDGET
WITH FY 1990 PROGRAM REQUIREMENTS SHOWN IN FY 1992/FY 1993 PRESIDENT'S BUDGET**

	Total Program Requirements per 1991 Budget	Total Program Requirements per 1992/1993 Budget	(In Thousands of Dollars)
Combat Aircraft.....	\$ 5,871,331	\$ 5,883,683	+\$ 12,352
Airlift Aircraft.....	-	-	-
Trainer Aircraft.....	108,285	99,262	- 9,023
Other Aircraft.....	-	-	-
Modification of Aircraft.....	1,540,439	1,522,487	- 17,952
Aircraft Spares and Repair Parts.....	1,219,605	1,167,214	- 52,391
Aircraft Support Equipment and Facilities...	558,464	505,153	- 53,311
Reimbursable Program.....	6,600	3,626	- 2,974
TOTAL FISCAL YEAR PROGRAM.....	\$ 9,304,724	\$ 9,181,425	-\$ 123,299

EXPLANATION BY BUDGET ACTIVITY

Combat Aircraft (\$12.4 million)

Increases totalling \$36.9 million accomplished through reprogramming include \$13.0 million to the F-14 and \$10.2 to the C/MH-53 primarily for airframe contract deinitializations; \$4.0 million to the SH-60F advance procurement account to fund revised long lead requirements; \$.6 million for the prior approval of advance procurement requirements for the P-7 aircraft; and \$9.1 million to the E-2 program for airframe and engine contract deinitializations (\$7.2 million) and for fatigue article test requirements (\$1.9 million). Decreases totalling \$24.5 million include the following: \$1.9 million from the AV-8B program resulting from contract deinitializations; \$.3 million from the F/A-18 program for slight pricing adjustments; and \$.1.6 million, \$10.2 million, \$9.9 million, and \$.6 million respectively from the advance procurement accounts for the F-18, C/MH-53, SH-60B, E-2C aircraft based on revised long lead requirements.

Trainer Aircraft (-\$9.0 million)

The decrease in this budget activity reflects cancellation of the T-44 aircraft procurement.

Modification of Aircraft (-\$18.0 million)

Below threshold reprogramming increases totalling \$46.1 million include the following: \$.1 million to the Adversary Series for a pricing adjustment to the Structural Fatigue/Avionics Improvement (OSIP 29-81); \$1.8 million to the F-18 Series for HARM Command Launch Computer upgrade change kits under the Correction of Discrepancies (OSIP 11-84); \$2.4 million to the H-1 Series for the VH-1 to UH-1 Conversion (\$2.1 million on OSIP 23-90) and for additional requirements on the Hover Coupler (\$.3 million, OSIP 156-84); \$.9 million to the EP-3 Series for increased cost to the CHOP program (OSIP 48-81); \$.6-.7 million to the P-3 Series for procurement of technical publications under the Block Upgrade (OSIP 80-84) and several other older modifications; \$.1.0 million to the E-2 Series for the Enhanced Main Display Unit on the Block Upgrade II (OSIP 74-88); \$.1.8 million to the Trainer Aircraft models primarily for the TA-4J Multiparameter Structural Fatigue Data (OSIP 29-90); \$.4-.9 million to the C/KC-130 Series for Defensive Electronic/Infrared Countermeasures (OSIP 34-90); \$.1.7 million to FEWSG for AN/AUQ-167 and AN/AST-4 Pod requirements (OSIP 119-83); \$.1.7 million to the Cargo & Transport for the C-2A requirements for Wing Center Section structural enhancements (OSIP 28-90) and C-2 Cargo Door modification (OSIP 33-90); \$.1.3 million for the E-6 Series to accomplish the GFE stripout for the production aircraft (OSIP 13-90); \$.9 million to the Power Plant Changes account for Kitting Facility support; \$.4.7 million to the Flight Safety account for several AV-8 safety requirements including Redundant Decs Enable Switch, Emergency Backup Electrical Upgrade, Departure Resistant Improvement and the added Nose Wheel Caster Failure Indicator; and \$.8.1 million to the Common Avionics for Standard Air Data Converters for the S-3 and ES-3 (\$4.5 million, OSIP 34-84) and for Downed Aircraft Location System (\$3.6 million, OSIP 31-90).

Offsetting the above by \$64.1 million were the following decreases: \$1.6 million from the A-4 Series due to changes to the J52-P6 Safety and Readiness Improvement (OSIP 93-86); \$.2.3 million from the H-46 Series due to rephasing the Position Locator Reporting System (PLRS, OSIP 21-90) to FY 91; \$.10.3 million from the H-53 Series due to delay of the PLRS (\$.2.3 million, OSIP 20-90) and MH-53E Engine Enhancement (\$7.5 million, OSIP 4-90) to FY 91 and revised estimating on the AN/AAR-47 Detection System Provisions (\$.5 million, OSIP 57-88); \$.3.5 million from VH-60 with cancellation of UHF (ECHO/FOXTROT) modification (OSIP 5-90); \$.2.3 million from the H-3 series resulting from cancelling the Collision Warning mod (OSIP 10-90) partially offset by establishing a VH-3D Service Life Extension Program (OSIP 25-90); \$.6.9 million from the S-3 series due to repassing elements of Block Upgrade I (OSIP 109-87); \$.36.2 million from the Mod Installation line representing a net amount of \$40.0 million on a D01415 for transfer from the appropriation offset by increases of \$.8 million for installation requirements for several of the changes cited in the previous paragraph; and \$.1 million each from the RF-4 Series and the H-2 Series, \$.3 million from the A-6 Series, and \$.5 million from the OV-10 series for various and miscellaneous repricings.

Aircraft Spares and Repair Parts (-\$52.4 million)

The change in this budget activity reflects a reduction of \$62.6 million to the initial spares segment and an increase of \$10.2 to the replenishment account. These represent realignment of replenishment and outfitting requirements and initial spares repassings and programmatic changes primarily affecting the F/A-18 and AV-8B.

Aircraft, Support Equipment, and Facilities (-\$53.3 million)

Changes in this budget activity are a net decrease of \$53.3 million. This resulted mainly from application of a \$65.0 million transfer out of the appropriation partially offset by increased requirements of \$5.4 million for the Consolidated Automated Support System in the Common Ground Equipment account. Other increases include \$2.7 million of additional bomb rack modification requirements in the War Consumables line and \$3.6 million to the Other Production Charges subaccount for technical support of common avionics equipment, for the procurement of C-2 publications and engineering, and for GFE technical manual procurements.

Reimbursable Program (-\$3.0 million)

The decrease in the reimbursable program reflects actual orders received of \$3.0 million which were less than originally anticipated.

**COMPARISON OF FY 1990 FINANCING AS REFLECTED IN FY 1991 PRESIDENT'S BUDGET
WITH FY 1990 FINANCING SHOWN IN FY 1992/FY 1993 PRESIDENT'S BUDGET**

	<u>Financing per 1991 Budget</u>	<u>Financing per 1992/1993 Budget</u>	<u>Increase (+) or Decrease (-)</u>
Program Requirements (Total).....	\$ 9,304,721	\$ 9,181,425	- \$123,299
Program Requirements (Service account).....	(9,298,124)	(9,177,799)	(- 120,325)
Program Requirements (Reimbursable).....	(6,600)	(3,626)	(- 2,974)
Less:			
Anticipated Reimbursements.....	6,600	3,626	+ 2,974
Transferred from other accounts.....	4,725	4,725	+ 4,725
Add:			
Unobligated balance available to finance subsequent year budget plans.....		10,600	+ 10,600
Reduction pursuant to P.L. 101-165.....	12,867	12,867	-
Transferred to other accounts.....	83,000	188,000	+ 105,000
Appropriation.....	\$ 9,389,266	\$ 9,389,266	\$ -

EXPLANATION OF CHANGES IN FINANCING

The decrease in program requirements of \$123,299,000 reflects an additional DD1415 transfer of \$105,000,000 out of the appropriation and an unrealized DD1415 proposed last year transferring \$4,726,000 into the appropriation. Additionally \$10,600,000 of unobligated balances are carried forward in anticipation of later reprogramming from the appropriation. Lower than anticipated reimbursements reduced the appropriation's financing by \$2,974,000.

STATUS OF AIRCRAFT MODIFICATION PROGRAMS
FY 1991 MODIFICATION OF AIRCRAFT
PROGRAMS AS OF 30 NOVEMBER 1990
(THOUSANDS OF DOLLARS)

PROGRAM	APPROPRIATED	REPROGRAMMING	PROGRAM VALUE	TOTAL OBLIGATIONS	TOTAL EXPENDITURES
A-3 SERIES	102	(102)	0	0	0
A-4 SERIES	7,407	(1,259)	6,148	0	0
A-6 SERIES	99,093	(1,781)	97,312	0	0
EA-6 SERIES	50,634	632	51,266	1,500	0
A-7 SERIES	102	(102)	0	0	0
AV-8 SERIES	401	9,000	9,401	0	0
F-4 SERIES	102	(102)	0	0	0
RF-4 SERIES	102	(102)	0	0	0
F-14 SERIES	72,388	(88)	72,300	0	0
F-5 SERIES	102	(102)	0	0	0
OV-10 SERIES	1,340	(211)	1,129	0	0
F-18 SERIES	19,568	3,120	22,688	0	0
H-46 SERIES	39,492	3,107	42,599	0	0
H-53 SERIES	35,694	(5,974)	29,720	0	0
SH-60 SERIES	45,079	(623)	44,456	0	0
H-1 SERIES	78,902	(27,478)	51,424	0	0
H-2 SERIES	8,932	0	8,932	0	0
H-3 SERIES	1,343	5,490	6,833	0	0
EP-3 SERIES	22,423	2,758	25,181	0	0
P-3 SERIES	179,883	(518)	179,365	3,311	0
S-3 SERIES	112,939	4,070	117,009	0	0
ES-3	5,163	(91)	5,072	346	0
E-2 SERIES	119,467	(28,540)	90,927	0	0
TRAINER A/C	23,404	(4,941)	18,463	0	0
C-130/KC-130 SERIES	7,952	(2,472)	5,480	0	0
FEWSG	5,464	1,212	6,676	400	0
CARGO & TRANSPORT A/C	6,373	(6,373)	0	0	0
E-6A	8,185	7,128	15,313	0	0
POWER PLANT CHANGES	11,606	4,730	16,336	300	0
MISC. SAFETY CHANGES	27	0	27	0	0
COMMON ECM EQUIPMENT	102,798	(4,606)	98,192	500	0
COMMON AVIONICS CHANGES	3,052	40	3,092	0	0
TOTAL B.A. 5	1,069,519	(44,176)	1,025,341	6,357	0

STATUS OF AIRCRAFT MODIFICATION PROGRAMS
FY 1990 MODIFICATION OF AIRCRAFT
PROGRAMS AS OF 30 NOVEMBER 1990
(THOUSANDS OF DOLLARS)

PROGRAM	APPROPRIATED	REPROGRAMMING	PROGRAM VALUE	TOTAL		TOTAL EXPENDITURES
				OBLIGATIONS	EXpenditures	
A-3 SERIES	100	(35)	65	0	0	
A-4 SERIES	6,339	(1,592)	4,747	4,202	162	
A-6 SERIES	111,387	(1,427)	109,960	61,374	11,824	
KA-6 SERIES	26,033	(60)	25,973	23,426	1,021	
A-7 SERIES	62	(32)	30	0	0	
AV-6 SERIES	100	16	116	0	0	
F-4 SERIES	98	(5)	93	0	0	
RF-4 SERIES	100	(100)	0	0	0	
F-14 SERIES	16,038	(36)	16,002	13,656	375	
F-5 SERIES	100	73	173	100	0	
ES-3 SERIES	107,966	(248)	107,718	101,468	20,150	
OV-10 SERIES	10,858	9,304	20,162	11,640	450	
F-16 SERIES	4,717	1,769	6,486	2,621	0	
H-46 SERIES	3,898	9,849	13,747	12,065	634	
H-53 SERIES	29,721	(7,956)	21,765	8,203	2,727	
SH-60 SERIES	599	0	599	0	0	
VH-60 SERIES	5,852	(3,500)	2,352	728	232	
H-1 SERIES	48,115	(74)	48,041	44,405	6,856	
H-2 SERIES	24,071	7,837	31,908	14,101	664	
H-3 SERIES	10,333	(2,303)	8,030	1,633	447	
EP-3 SERIES	13,752	1,968	15,720	13,954	7,168	
P-3 SERIES	30,725	6,624	37,349	35,856	5,589	
S-3 SERIES	81,135	(7,044)	74,091	65,313	8,647	
E-2 SERIES	71,720	9,371	81,091	78,923	9,260	
TRAINER A/C	2,310	1,815	4,125	162	95	
CARGO & TRANSPORT A/C	1,552	1,744	3,296	121	23	
E-6A SERIES	7,512	1,259	8,771	8,506	1,913	
C-130/XC-130 SERIES	3,129	4,922	8,051	1,477	54	
FEWSG	269	1,755	2,024	2,024	871	
POWER PLANT CHANGES	5,959	885	6,844	5,034	1,045	
MISC. SAFETY CHANGES	999	4,685	5,684	5,650	23	
COMMON ECM EQUIPMENT	46,781	(107)	46,674	34,604	24,370	
COMMON AVIONICS CHANGES	1,427	9,803	11,230	475	0	
MOD INSTALLATIONS	918,700	(119,130)	799,570	606,245	95,579	
TOTAL B.A. 5	1,502,457	(69,970)	1,522,487	1,157,968	106,179	

STATUS OF AIRCRAFT MODIFICATION PROGRAMS
FY 1989 MODIFICATION OF AIRCRAFT
PROGRAMS AS OF 30 NOVEMBER 1990
(THOUSANDS OF DOLLARS)

PROGRAM	APPROPRIATED	REPROGRAMMING	PROGRAM VALUE	TOTAL		TOTAL EXPENDITURES
				OBLIGATIONS	EXpenditures	
A-3 SERIES	822	(45)	777	740	635	
A-4 SERIES	2,294	796	3,090	3,089	106	
A-6 SERIES	176,346	(59,805)	118,541	114,969	40,150	
EA-6 SERIES	36,784	(899)	35,885	30,638	5,282	
AV-8 SERIES	942	6,172	7,114	6,356	2,823	
ES-3 SERIES	155,275	(971)	154,304	152,141	71,051	
F-14 SERIES	33,174	949	34,123	32,412	8,690	
F-5 SERIES	62	(62)	0	0	0	
OV-10 SERIES	32,825	1,521	34,346	34,200	13,897	
F-18 SERIES	94	9,073	9,167	9,140	4,931	
H-40 SERIES	21,064	(187)	20,877	20,831	3,490	
H-53 SERIES	14,368	(133)	14,255	10,622	1,044	
SH-60 SERIES	4,501	(4,299)	202	201	0	
VH-60 SERIES	1,187	11	1,198	1,142	147	
H-1 SERIES	28,961	2,262	31,223	30,351	10,187	
H-2 SERIES	5,679	3,238	8,917	8,427	2,122	
H-3 SERIES	31,609	(3,635)	27,974	26,954	3,077	
EP-3 SERIES	26,498	4,395	30,893	29,803	24,265	
P-3 SERIES	131,932	(4,374)	127,558	123,855	67,898	
S-3 SERIES	135,567	832	136,399	133,774	90,127	
E-2 SERIES	40,675	1,963	42,638	41,780	29,184	
TRAINER A/C	532	860	1,392	1,329	765	
CARGO & TRANSPORT A/C	1,709	(1,035)	674	614	154	
EC-130 SERIES	12,735	(11,422)	1,313	1,192	685	
C/XC-130 SERIES	2,095	2,062	4,157	3,781	709	
FEWSG	1,817	434	2,251	2,250	1,428	
VARIOUS	1,025	(4)	1,021	1,015	97	
POWER PLANT CHANGES	2,022	1,517	3,539	3,042	1,737	
MISC. SAFETY CHANGES	97	1,115	1,212	288	101	
COMMON ECM EQUIPMENT	85,335	53	85,388	80,645	20,824	
COMMON AVIONICS CHANGES	447	(47)	400	400	161	
TOTAL B.A. 5	990,493	(49,665)	940,828	885,781	421,073	